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# HELMINTHOLOGICAL ABSTRACTS

*incorporating*  
BIBLIOGRAPHY OF HELMINTHOLOGY  
For the Year 1937.



IMPERIAL BUREAU OF AGRICULTURAL PARASITOLOGY  
(HELMINTHOLOGY)

Winches Farm    Hatfield Road  
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# HELMINTHOLOGICAL ABSTRACTS

INCORPORATING BIBLIOGRAPHY OF HELMINTHOLOGY  
FOR THE YEAR 1937.

Vol. VI, Part 4.

## 250—Agricultural Gazette of New South Wales.

- a. HUNGERFORD, T. G., 1937.—“Internal parasites of the pig.” 48 (9), 520-524, 531.

(250a) The two parasites of outstanding economic importance in New South Wales are: (i) *Stephanurus dentatus* which occurs on the north and central but not the south coast. When common the raising of prime porkers is impossible, and heavy losses may be sustained, even in light infections, when the carcasses for export are condemned. (ii) *Ascaris lumbricoides* which is widespread in all pig-raising areas in the State. On one farm approximately 20% of the young pigs between 6 and 10 weeks old died and the others were unthrifty, many showing signs of pneumonia. In one case with acute inflammation of the lung and liver there were thousands of tiny yellow abscesses in the lung. Drainage of the yards and spraying, at 6 months interval, with a 10% solution of copper sulphate resulted in healthy stock. The other helminths mentioned are *Metastrongylus apri*, *Macracanthorhynchus hirudinaceus*, *Oesophagostomum* spp., *Fasciola hepatica*, hydatid cysts and whipworms.

R.T.L.

## 251—Agricultural Progress.

- a. HODSON, W. E. H., 1937.—“The root eelworm, *Heterodera schachtii* Schmidt, in relation to agricultural crops.” 14 (3), 247-251.

(251a) Hodson gives a general account of the economic importance of *Heterodera schachtii* in Britain. The life cycle of the parasite, symptoms produced in the host and remedial and control measures are briefly described, together with a method of determining whether cysts are present in soil.

M.J.T.

## 252—Agriculture and Live-Stock in India.

- a. SRIVASTAVA, H. D., 1937.—“Verminous pneumonia in domestic animals—its control and treatment.” 7 (5), 585-595.

(252a) This is one of a series of popular articles “for practical farmers” and deals with the life-history, pathogenesis, symptoms, diagnosis and treatment of the various nematode lungworms of domesticated animals.

R.T.L.



## 253—American Heart Journal.

- a. PORTER, W. B., 1937.—“Heart changes and physiologic adjustment in hookworm anemia.” 13 (5), 550-579.

## 254—American Journal of Hygiene.

- a. KELLER, A. E., LEATHERS, W. S. & KNOX, J. C., 1937.—“The present status of hookworm infestation in North Carolina.” 26 (3), 437-454.  
b. SCOTT, J. A., 1937.—“The prevalence and distribution of hookworm infection in Egypt.” 26 (3), 455-505.  
c. SCOTT, J. A., 1937.—“Observations on the transmission of hookworm infection in Egypt.” 26 (3), 506-526.

(254b) Over most of Egypt about half the rural population is infected with hookworm. The degree of infection varies in different villages, attaining to 90% in some instances. In the Fayum the infection rate may fall to 15% while in certain other districts especially to the north of the Delta the rate is less than 20%. As compared with other countries the intensity of infection is universally low. Up to the age of 10 years both sexes acquire infection at about the same rate, but in the females the rate increases more slowly thereafter, attaining a maximum at 20 years of age as compared with 15 years of age in the males. This is attributed to the marked association of field work and hookworm acquisition. This rate of acquisition is independent of differences in the type of crops grown or of the different methods of irrigation used.

R.T.L.

(254c) Although soil pollution is very common throughout, and in the immediate neighbourhood of, Egyptian villages no hookworm larvae could be isolated from soil samples from these localities. This is explained as due to excessive dryness of the soil and the excess chlorides or an associated factor. Few larvae were obtained from hundreds of samples from fields where pollution seemed to occur regularly although these soils gave good cultures experimentally. Large numbers of larvae were occasionally isolated from heavily contaminated areas just above the water line of canals, ponds or river. While therefore soil infestation may be widespread it is seldom intense and this corresponds with the observations of the author [see previous abstract] that while hookworm is widely prevalent in Egypt generally it is not intense.

R.T.L.

## 255—American Journal of Public Health.

- a. SAWITZ, W., 1937.—“Are post-mortem statistics on trichinosis valid for the living population?” 27 (10), 1023-1024.

(255a) Sawitz has compared the incidence of trichinosis in autopsies and in living persons in New Orleans, using digestion and direct examination for the autopsy material and the Bachman intradermal test for living persons. The results were similar for both types of survey, an incidence of 5%, and it is suggested that post-mortem findings may be taken as representative of the incidence in the living population.

V.D.S.

## 256—Anales del Instituto de Biología.

- a. CABALLERO Y C., E., 1937.—“Un caso de parasitismo accidental por *Rhabditis pellio* en México.” 8 (3), 393-395.
- b. CABALLERO Y C., E., 1937.—“Contribución al conocimiento de los nemátodos de las aves de México. IV.” 8 (3), 397-403.
- c. CABALLERO Y C., E., 1937.—“Especies del género *Hamatospiculum* Skrjabin, 1916 (Nematoda: Filarioidea); parásitos del tejido conjuntivo subepitelial de las aves. VI.” 8 (3), 405-417.

(256a) Caballero records the first occurrence in Mexico of an accidental infestation of *Rhabditis pellio* from the urino-genital organs of a human female. Several samples of urine contained males, females and larvae of the nematode.

T.G.

(256b) Caballero describes *Oxyspirura* (*Oxyspirura*) *toroi* n. sp. from the nictitating membrane of *Colinus graysoni* in Mexico; it differs from other species mainly in the number and arrangement of the male tail papillae. He also redescribes *Ascaridia galli*.

B.G.P.

(256c) Caballero has revised the genus *Hamatospiculum*, which he assigns to the subfamily Dicheilonematinae. He redescribes *H. insignis* from new material and regards *H. brasilianum* as a synonym. *H. quadridens* and *Parhamatospiculum nodulosum* are reduced to the synonymy of *H. foveatum* and *H. nodulosum* respectively.

B.G.P.

## 257—Annales de Parasitologie Humaine et Comparée.

- a. WU, K., 1937.—“Deux nouvelles plantes pouvant transmettre le *Fasciolopsis buski*. Revue générale.” 15 (5), 458-464.
- b. PAVLOV, P., 1937.—“Recherches expérimentales sur le cycle évolutif de *Synthetocaulus capillaris*.” 15 (6), 500-503.
- c. CABALLERO Y C., E., 1937.—“*Passalurus abditus* nouvelle espèce de nématode, parasite d'un rongeur mexicain.” 15 (6), 504-506.
- d. EJSMONT, L., 1937.—“*Opisthorchis tenuicollis* (= *O. felineus*) en Pologne. Cas observés chez l'homme.” 15 (6), 507-517.
- e. BERGHE, L. VAN DEN, 1937.—“*Schistosoma bovis* chez deux antilopes *Limnotragus spekei* (Parc National de la Kagera, Ruanda, sous mandat belge).” 15 (6), 518-519.
- f. TIMON-DAVID, J., 1937.—“Les kystes à *Didymocystis wedli* du thon. Étude anatomo-pathologique.” 15 (6), 520-523.
- g. TARASSOV, V., 1937.—“De l'immunité envers le bothriocéphale *Diphyllorhynchus latum* (L.).” 15 (6), 524-528.

(257a) Kuang Wu reviews the plant vectors of *Fasciolopsis buski* in the Far East and records *Salvinia natans* and *Spirodela* (*Lemna*) *polyrhiza* as two new vectors. He is inclined to think that the cercariae of *F. buski* have no specific preference for encysting on certain types of plants, but that they can encyst and live on almost any kind of aquatic vegetation.

J.J.C.B.

(257b) Pavlov examined a large number of molluscs from sheep pastures in Bulgaria and found that the most important intermediate host for *Synthetocaulus capillaris* is *Helicella obvia*. From 15 to 20% of these snails were infected and 4 to 5 larvae were found in each with 19 in one exceptional case.



Infected molluscs were found on pastures which had not grazed sheep for 1 to 2 years previously. The development of the parasite in the snail is fully described and it was found that the larvae could survive the death of the host for 10 days. The author considers that the parasite can be controlled by allowing pigs to graze on infected pastures before sheep are put on. The molluscs are readily eaten by pigs, particularly if their food is lacking in minerals. D.O.M.

(257e) Recording *Schistosoma bovis* for the first time in an undomesticated animal, *Limnotragus spekei*, Van den Berghe notes that previously *S. margrebowiei* was the only blood-fluke known from African antelopes. B.G.P.

(257f) Timon-David describes the histopathology of *Didymocystis wedli* infection on the gills of the tunny, *Thynnus thynnus*, off the Bouches-du-Rhône coast. The trematodes occur always in pairs within golden-yellow elliptical cysts on the very edge of the gill filaments. Histologically, the cyst is seen to lie in connective tissue between the peripheral membrane and the marginal vein, compressing the latter and causing resorption of its osseous covering. B.G.P.

(257g) Tarassov found from experimental feedings to himself that a temporary immunity to *Diphyllbothrium latum* was set up. The first feeding was 100% positive, the second rather under 30% and the third completely negative. This immunity was, however, transient and disappeared between two and three years after the expulsion of the worms. Changes in the composition of the blood appeared about eight weeks after the ingestion of the plerocercoids. P.A.C.

#### 258—Annales de la Société Belge de Médecine Tropicale.

- a. NEUJEAN, G., 1937.—“Le parasitisme intestinal chez les indigènes des hauts plateaux (environs de Kitega).” 17 (3), 343-349.

#### 259—Annali d'Igiene.

- a. VANNI, V., 1937.—“Ricerche parassitologiche sui ratti di Roma.” 47 (10), 477-492.

(259a) Vanni reports on the endo- and ecto-parasites of 100 rats and mice in Rome. The helminths are *Hymenolepis diminuta*, *H. nana*, *Cysticercus pisiformis*, *Aspiculuris tetraptera*, *Dermatoxys veligera* (?), *Syphacia obvelata*, *Strongyloides ratti*, and what is claimed as a new species [but without the necessary differentiation]: *Capillaria intestinalis*. B.G.P.

#### 260—Annals of Internal Medicine.

- a. HALL, A. A., 1937.—“An outbreak of trichiniasis in central Ohio and the use of the Bachman intradermal skin test.” 10 (10), 1544-1550.

(260a) Hall summarizes previous records of trichinosis in Ohio, and describes eight cases diagnosed correctly by the Bachman intradermal skin test, which, he suggests, should supplant muscle biopsy for diagnosis. V.D.S.

## 261—Annals and Magazine of Natural History.

- a. PANDE, B. P., 1937.—“Morphology and relationships of a new digenetic trematode from an Indian freshwater fish, *Ophiocephalus punctatus*.” Ser. 10, 20 (118), 415-421.
- b. BAYLIS, H. A., 1937.—“Note on *Acuaria* (*Echinuria*) *decorata* Cram, 1927 [Nematoda].” Ser. 10, 20 (118), 436-438.
- c. BAYLIS, H. A., 1937.—“Records of some helminths from the spotted hyaena.” Ser. 10, 20 (118), 438-441.
- d. VIDYARTHI, R. D., 1937.—“A new parasite of the genus *Proalarioides* Yamaguti, 1933 (Trematoda: Proterodiplostomidae), with a note on *Neodiplostomum gavalis* Narain, 1930.” Ser. 10, 20 (119), 549-553.

(261a) Pande describes *Allocreadium handiai* n. sp. from *Ophiocephalus punctatus* caught at Allahabad. While it belongs to the genus *Allocreadium* it shows some remarkable relationships with *Polylekithum* Arnold 1934 which Pande concludes is a synonym of *Allocreadium*. R.T.L.

(261b) *Acuaria* (*Echinuria*) *decorata* has twice been found under the lining of the gizzard of the Little Grebe by Baylis, who describes the caudal papillae of the male which had not been observed by Cram and confirms the presence of a single uterus in the female. R.T.L.

(261c) From *Hyaena* (*Crocotta*) *crocuta* in Tanganyika Baylis records *Taenia hyaenae* Baer, 1924, which may be a synonym of *T. hydatigena*, small cysticerci in large numbers in the liver which have some resemblance to *T. tenuicollis* Rud., and spargana and fragments of an undetermined *Diphyllobothrium*. Two females of *Toxocara canis* were present in the stomach of a hyaena and a single male in the small intestine of a jackal. R.T.L.

(261d) Vidyarthi describes *Proalarioides tropidonotis* n. sp. from the intestine of the water-snake, *Tropidonotus piscator*. The generic diagnosis is emended to accommodate the new form. *Neodiplostomum gavalis* Narain is transferred to the genus *Crocodicicola* as *C. gavalis* (Narain). E.M.S.

## 262—Annals of Surgery.

- a. BEEKMAN, F., 1937.—“Echinococcus cyst of the liver in a child.” 105 (4), 628-630.
- b. MILLER, H. E. & COLLINS, C. G., 1937.—“Echinococcus disease. Report of a case of primary echinococcus cyst of the uterus.” 105 (6), 886-895.

## 263—Annals of Tropical Medicine and Parasitology.

- a. WU, K., 1937.—“Susceptibility of various mammals to experimental infection with *Fasciolopsis buskii* (Trematoda: Fasciolidae).” 31 (3), 361-369.
- b. SOUTHWELL, T. & KIRSHNER, A., 1937.—“Parasitic infections in a swan and in a brown trout.” 31 (3), 427-433.
- c. ROY, D. N. & MUKHERJEE, P. K., 1937.—“*Allantonema muscae* sp. nov., a new parasitic nematode of the family Rhabditidae from the haecocoele of *Musca vicina*.” 31 (4), 449-451.
- d. ROY, D. N. & MUKHERJEE, P. K., 1937.—“*Allantonema stricklandi* sp. nov., a parasitic nematode of house-flies, *Musca vicina*.” 31 (4), 453-456.
- e. PURVIS, G. B., 1937.—“The synonyms of the trematode genus *Pachytrema* Looss, 1907.” 31 (4), 457-460.



(263a) Wu has fed *Fasciolopsis buski* cysts to 45 mammals of 12 species, and has performed autopsies at different intervals. In light infections in pigs nearly all the worms reached maturity. As far as was ascertained the worms remain immature in dogs. Both immature and mature forms were found in rabbits, which may prove to be suitable for experimental work with this worm. A young buffalo, which died 20 days after being fed several thousand cysts, was found to contain 46 immature worms. The remaining animals, monkey, cats, sheep, goat, ox, guinea-pigs, rats and mice, failed to develop any infestation.

E.M.S.

(263b) Southwell & Kirshner give a first record from the swan of *Hymenolepis gracilis* and the acanthocephalan *Filicollis anatis*. They describe *Psilostomum cygnei* n. sp., the first trematode of the family Psilostomidae reported from swans. From the brown trout they report the nematode *Cystidicola farionis* in the swim-bladder, and the monogenetic trematode, *Mazocraes sagittatum* n. comb., syn. *Octobothrium sagittatum* Leuckart. The latter was present on the gills in large numbers, and was the immediate cause of death.

E.M.S.

(263c) Five out of 1,500 specimens of the fly *Musca vicina* dissected by Roy & Mukherjee were found to contain females of a nematode parasite which the authors name *Allantonema musca* n. sp. A short description of the gravid worm is given as well as some measurements of eggs and larvae also found in the body cavity of the host.

T.G.

(263d) Roy & Mukherjee give a brief illustrated description of the gravid female of *Allantonema stricklandi* n. sp. found parasitic in the body cavity of a wild specimen of *Musca vicina*. The new species differs from *Allantonema musca* in its greater size and in possessing a terminal caudal process.

T.G.

(263e) Purvis gives grounds for his opinion that *Minuthorchis* Linton, 1928 and *Multivitellaria* Phadke & Gulati, 1929 are synonyms of *Pachytrema* Looss, 1907. He considers that the position of the uterus in relation to the gonads is the only reliable character distinguishing Dicrocoeliidae from Opisthorchiidae.

R.T.L.

#### 264—Annual Report. Avon Biological Research. University College, Southampton, 1935-36.

- a. HOCKLEY, A. R., 1937.—“An investigation of holostomiasis in Avon coarse fish.” No. 4, pp. 103-106.

(246a) During the summer of 1933, Avon (Hampshire) coarse fish were especially heavily infected with the larvae of the trematode *Neodiplostomum*. The pigmented cysts of the parasite caused the infection to be known as “black spot disease” although it now appears that ill effects are seldom produced in the fish. Attempts to elucidate the life-cycle have so far produced but little results.

E.M.S.

#### 265—Archiv für Experimentelle Pathologie und Pharmakologie.

- a. GROS, O., 1937.—“Versuche zur Bestimmung der Wirkung wurmtreibender Mittel am Frosche.” 187 (1), 100-105.



(265a) Gros has used *Diplodiscus subclavatus* in *Rana esculenta* for testing the efficacy of varying concentrations of several anthelmintics. The solutions were injected *per os* into the stomach of curarized frogs which were killed at definite intervals. Data are given for male fern extract, kamala, chenopodium oil, granatum, cymene and thymol.

B.G.P.

## 266—Archiv für Schiffs- und Tropen-Hygiene.

- a. LÜDERS, H., 1937.—“*Filaria bancrofti* in Abessinien.” [Correspondence.] 41 (3), 349-350.
- b. STORBECK, F., 1937.—“Gustav Nachtigal als Arzt in ‘Sahara und Sudan.’ Ein Beitrag zur historisch-geographischen Pathologie. I.” 41 (10), 621-641.
- c. KRÖBER, F., 1937.—“Ein Fall von doppelseitiger Hodentuberkulose, die mit Bilharzia vergesellschaftet war.” 41 (10), 644-647.
- d. GMINDER, E., 1937.—“Bilharziose und Operation.” 41 (10), 647-650.
- e. KHALIL, M., HASSAN, A. & SALAH, M., 1937.—“The use of pyrocatechin disulphonate of sodium as a kidney function test.” 41 (11), 690-694.

(266a) A case of haematuria and chyluria with microfilariæ is reported from Bedelle, Abyssinia.

R.T.L.

(266e) As a complex compound which gives a pyrocatechin reaction with  $\text{FeCl}_3$  is excreted in the urine, this test was applied on a large scale in bilharzia cases undergoing treatment with Fouadin. There is evidence that kidney disease is present when this complex compound is not excreted after Fouadin injections.

R.T.L.

## 267—Archives Médico-Chirurgicales de Province.

- \*a. SCHACHTER, M., 1937.—“Crises hystériformes et taenia chez une malade obèse avec insuffisance ovarienne.” 27, 16-18.

## 268—Archivio Italiano di Chirurgia.

- a. ETTORRE, E., 1937.—“Echinococchi ossea.” 45 (2), 149-174.

## 269—Archivio Italiano di Scienze Mediche Coloniali e di Parassitologia.

- a. CAIZZONE, G., 1937.—“Quadri poco comuni di anchilostomiasi nostrale.” [Abstract of a paper presented at the VI Congresso della Società di Patologia e Igiene Coloniale.] 18 (5), p. 280.
- b. CRISAFULLI, A., 1937.—“L’anchilostomiasi in provincia di Messina, Reggio Calabria.” [Abstract of a paper presented at the VI Congresso della Società di Patologia e Igiene Coloniale.] 18 (5), p. 282.
- c. CARONIA, G., 1937.—“Sulla terapia della trichinosi.” [Abstract of a paper presented at the VI Congresso della Società di Patologia e Igiene Coloniale.] 18 (5), p. 283.
- d. PENSO, G., 1937.—“Gli antimoniali nella cura dell’ossiuriosi.” [Abstract of a paper presented at the VI Congresso della Società di Patologia e Igiene Coloniale.] 18 (5), 283-284.
- e. CICCHITTO, E., 1937.—“La bilharziosi in Libia.” 18 (8), 494-509.
- f. BACCHELLI, G., 1937.—“L’anchilostomiasi in Tripolitania.” 18 (10), 606-609.

\* Original not available for checking or abstracting.

(269a) Caizzone mentions two unusual cases of ancylostomiasis. In one, the symptoms pointed to duodenal ulcer. In the other, eggs were persistently absent from the faeces, and it appears that treatment about a year earlier had sterilized the worms, though 80 were finally dislodged by carbon tetrachloride. B.G.P.

(269b) Crisafulli finds that, in spite of active prophylactic and anthelmintic measures, ancylostomiasis continues to be a disease of the greatest importance in the two provinces of Messina and Reggio Calabria. B.G.P.

(269c) Describing a case of trichinosis cured after treatment with antimony, Caronia urges the more extensive trial of this drug, notwithstanding disappointing results with laboratory animals. B.G.P.

(269d) Penso has had sufficiently encouraging results to support the further trial of antimony against *Oxyuris*: the use of the drug is specially directed against those worms in the intestinal wall where they are beyond the reach of ordinary anthelmintics. B.G.P.

(269e) Briefly reviewing the distribution of schistosomiasis in Libya, Cicchitto shows that only *S. haematobium* has been definitely proved to be indigenous. He discusses pathology, diagnosis and treatment. B.G.P.

#### 270—Archivos Uruguayos de Medicina, Cirugía y Especialidades.

- a. CHARLONE, R. & SACCO-FERRARO, L., 1937.—“A propósito de dos casos de quistes hidáticos pelvianos femeninos.” 10 (2), 184-196.
- b. LARGHERO-IBARZ, P., 1937.—“Cole-pneumotórax hidático y fistulización hepato-bronquica.” 10 (2), 210-218.
- c. CAMPO, J. C. DEL & VÁZQUEZ-PIERA, L. A., 1937.—“Quiste hidático del pulmón. Enquistamiento de la membrana.” 10 (4), 469-479.
- d. CHARLONE, R. & SACCO-FERRARO, L., 1937.—“Quiste hidático de la mama.” 10 (5), 607-616.
- e. TALICE, R. V., 1937.—“Infestación experimental del perro por la tenia equinococo. Primera nota.” 10 (6), 746-759.

(270e) Feeding uni- and multi-locular hydatids to 12 dogs, Talice found only a single tapeworm in one of six dogs over five months old, whereas of six dogs two months old five became infected, one very heavily. This second group was fed with bovine multilocular hydatid, and it is noted that the tapeworms were typical *Echinococcus granulosus*. B.G.P.

#### 271—Beiträge zur Pathologischen Anatomie und zur Allgemeinen Pathologie.

- a. KLEINEBRECHT, W., 1937.—“Zur Kenntnis des *Echinococcus alveolaris* im bayrisch-württembergischen Endemiegebiet.” 98 (2), 285-306.

(271a) Discussing 8 cases of alveolar hydatid in man, Kleinebrecht points out that they all originated from the Danube basin in Bavaria—a notorious area for alveolar as distinct from cystic hydatid. He calls attention to the tendency of such cases to occur in river valleys. One of his cases was muscular, one cerebral, and the rest hepatic. B.G.P.



**272—Bergcultures.**

- a. FLUITER, H. J. DE, 1937.—“Resultaten, verkregen bij het beplanten van met aaltjes besmette terreinen.” 11 (34), 1226-1231.

(272a) de Fluiter presents the results of experiments, carried out at 4 estates in the Dutch East Indies, on planting coffee in soil known to be infested with the root eelworm, *Anguillulina pratensis*. His chief conclusions are that in a coffee plantation infested with *A. pratensis* many of the plants are killed but a good percentage seem to remain healthy even though their roots are invaded by the parasite. By selecting these apparently resistant plants and growing them on, even in infested soil, they retain their resistance. He recommends the selection of such resistant plants and suggests the planting of 3 plants one foot apart instead of one plant per hole. The soil must be maintained in a fertile condition and adequate shade must be provided so as to protect the plants as much as possible.

T.G.

**273—Berliner Tierärztliche Wochenschrift.**

- a. SCHMID, F., 1937.—“Zur Bekämpfung des Lanzettegelbefalles bei Schafen.” Jahrg. 1937 (53), 805-808.

(273a) Schmid reviews the recent work, from the laboratories of Nöller and Mattes respectively, on the life-history of *Dicrocoelium dendriticum*. He lists the intermediaries, with photographs of seven of them, and discusses control. This is complicated by the fact that the rabbit is readily infected, by the widespread distribution of intermediaries over mountain slopes, the multiplicity of species and their little-understood habits, by the resistance of the fluke to treatment, and by the special nature of free-range sheep management in infected areas. In view of these complications, Schmid cannot regard as suitable most of the measures suggested by Mattes. Probably the best line of attack at present is the treatment of sick animals, following up Sprehn's suggestive results with Fouadin.

B.G.P.

**274—Biological Bulletin of the Marine Biological Laboratory, Wood's Hole, Mass.**

- a. BEAMS, H. W. & KING, R. L., 1937.—“The suppression of cleavage in ascaris eggs by ultracentrifuging.” 73 (1), 99-111.

**275—Boletín del Instituto de Clínica Quirúrgica.**

- a. ARCE, J., 1937.—“Quistes hidáticos calcificados del hígado.” 13 (109), 169-179.

**276—Boletín del Ministerio de Sanidad y Asistencia Social.**

- a. ECHENIQUE, R. C., 1937.—“Parasitosis intestinal en San Fernando de Apure.” Año 2, 1 (15/16), 1052-1055.

(276a) In this very brief paper Echenique reports on the parasites in 790 faecal samples from San Fernando, under the headings hookworm (33.4%), *Trichuris* (55.72%), *Ascaris* (40%), *Entamoeba*, and “other parasites” (3.5%).

B.G.P.

## 277—Boletines y Trabajos de la Sociedad de Cirugía de Buenos Aires.

- a. RODRÍGUEZ VILLEGAS, R. & SCHENA, A. T., 1937.—“Hidatidosis pulmonar secundaria.” 21 (1), 28-34.

## 278—British Journal of Surgery.

- a. BEGG, R. C., 1937.—“Pyelography in renal hydatids.” 24 (96), 691-702.  
 b. D'ABREU, A. L., 1937.—“One-stage lobectomy for hydatid disease of the lung.” 24 (96), 713-716.

## 279—British Medical Journal.

- a. VAN SOMEREN, V. D., 1937.—“The occurrence of subclinical trichinosis in Britain. Results from 200 London necropsies.” No. 4014, 1162-1165.  
 b. SUTTON, S. W., 1937.—“Trichinosis.” [Correspondence.] No. 4015, p. 1249.

(279a) Two hundred diaphragms obtained from London general hospitals were examined for *Trichinella spiralis*. Only 2 showed infection and in both the infection was slight. Neither patients had been abroad. The larvae were recovered by digestion in artificial gastric juice. In both cases microscopical examination had proved negative.

R.T.L.

## 280—Bulletin de l'Académie de Médecine de Roumanie.

- a. URECHIA, C. I., 1937.—“Sur quelques cas de cysticerose du système nerveux.” 3 (1), 19-33.

(280a) Urechia gives illustrated descriptions of six cases of cerebral cysticerciasis. His observations show that the great majority of cysts are associated with the meninges: they rarely occur fully embedded in brain tissue. The histopathology is fully described.

B.G.P.

## 281—Bulletin de l'Institut Océanographique de Monaco.

- a. TIMON-DAVID, J., 1937.—“Étude sur les trématodes parasites des poissons du golfe de Marseille. (Première liste.)” No. 717, pp. 1-24.

(281a) Eighteen known species of trematodes occurring in Mediterranean fishes are listed under their hosts. They are illustrated and briefly described.

R.T.L.

## 282—Bulletins et Mémoires de la Société de Radiologie Médicale de France.

- a. TOUPET, MOREAU, DARIAUX & CASSAN, 1937.—“Kyste hydatique calcifié du foie.” 25 (236), 115-117.

## 283—Bulletin du Musée Royal d'Histoire Naturelle de Belgique.

- a. DOLLFUS, R. P., 1937.—“Sur *Distoma ascidia* P. J. van Beneden 1873 [nec Linstow, nec Looss] et le genre *Prosthodendrium* R. Ph. Dollfus 1931 [Trematoda. Lecithodendriinae].” 13 (23), 1-21.



(283a) Dollfus shows that when Looss created in 1896 the genus *Lecithodendrium*, he included in it forms whose vitellaria were both pretesticular and post-testicular. He misrepresented the type species, *Distoma ascidia* v. Ben., as possessing post-testicular vitellaria. The genus *Lecithodendrium* is now therefore restricted to forms agreeing with Looss' *ascidia*, which is renamed *L. linstowi* nom. nov. The true *ascidia* v. Ben., with all other forms with pretesticular vitellaria is placed in the genus *Prosthodendrium* Dollfus, 1931, type *P. dinanantum* Bhalerao. Within the latter genus those species with a strongly lobed ovary are further separated as the sub-genus *Paralecithodendrium* Odhner. The genera *Acanthatrium* Faust and *Castroia* Travassos are maintained.

E.M.S.

## 284—Bulletin de la Société Médico-Chirurgicale de l'Indochine.

- a. KELLER, 1937.—“Note sur une nouvelle méthode de traitement de la sparganose oculaire.” 15 (5), 524-536.
- b. GALLIARD, H., 1937.—“Recherches sur l'importance actuelle de la filariose humaine au Tonkin.” 15 (6), 642-645.
- c. GALLIARD, H., DANG-VAN-NGU & PHAN-HUY-QUAT, 1937.—“Recherches sur le parasitisme intestinal à Hanoi.” 15 (6), 645-648.

(284a) Twelve cases of ocular sparganosis have been successfully treated by novarsenobenzol. For children the minimum dose is 7 to 15 c.g. ; for adults 30 to 45 c.g.

R.T.L.

(284b) Galliard has found that in three regions of Tonkin the incidence of filariasis among 1,363 persons is 7.27%, compared with 3.80% of 2,740 persons from the same localities found by Mathis & Léger in 1911. This difference may be due, to an unknown extent, to different techniques of blood-examination. As formerly, clinical cases are rare. *F. malayi* has been recorded from Hai-duong.

B.G.P.

(284c) Galliard and his collaborators have made a comparative faeces examination on a random hospital population of 500 persons from the Hanoi district, using (i) the direct smear method and (ii) sedimentation for two periods of about 30 minutes. The total incidence of parasitism (including protozoa) was 88%. Comparison with other investigations at the same hospital dating back to 1907 reveals no definite improvement.

B.G.P.

## 285—Bulletin de la Société de Pathologie Exotique.

- a. NAIN, M., 1937.—“Note sur les indices d'endémicité de deux foyers de bilharziose vésicale marocaine.” 30 (3), 237-238.
- b. ADVIER, M., 1937.—“Note sur la lymphangite endémique et son traitement à la Guadeloupe.” 30 (5), 359-361.
- c. BERNY, P. & GIPPET, E., 1937.—“Essai de traitement de la lymphangite endémique par le benzyl-amino-benzène-sulfamide.” 30 (8), 715-717.
- d. GUILLIER, G., 1937.—“La bilharziose vésicale dans la région d'Ambanja. (Bas-Sambirano).” 30 (8), 742-744.
- e. GARIN, C. & ROMAN, E., 1937.—“Observations et remarques sur un cas de bilharziose rectale diagnostiqué à Saint-Etienne chez un mineur originaire de Djibouti.” 30 (9), 772-775.
- f. TRUONG-TAN-NGOC, 1937.—“Filariose du canard domestique en Cochinchine due à *Oshimaia taiwana* (Sugimoto, 1919).” 30 (9), 775-778.

(285b) Advier briefly produces evidence to show that the endemic lymphangitis of Guadeloupe is streptococcal and not filarial in origin.

B.G.P.

(285d) Guillier has evidence that *Schistosoma haematobium* is becoming widespread in Madagascar. In seven villages of the Ambanja region 40% of 196 children were infected, and this region appears to be the focus of infection in the island.

B.G.P.

(285f) The philometrid *Oshimaia taiwana*, carried by Cyclops, lives in the mandibular tissues of ducks, where it provokes the formation of a nodule which may become large enough to cause asphyxia or inanition unless extirpated. Truong-Tan-Ngoc briefly discusses the incidence of the parasite, in Chinese and Annamite more readily than in Siamese ducks, and in marshy places during the dry season (January to April), and describes the symptomatology. Although microfilariae occur in the blood, the fully mature parasites usually perforate the tumour and escape to the exterior. The male worm is not yet known.

B.G.P.

## 286—Canadian Journal of Comparative Medicine.

- a. SWALES, W. E., 1937.—“The practitioner's rôle in parasitology.” 1 (1), 17-22.
- b. CAMERON, T. W. M., 1937.—“Trichinosis.” 1 (2), 5-14.

(286b) Cameron gives a brief but comprehensive account of trichinosis in all its aspects, embodying recent data on incidence, life-history, pathology, immunity, diagnosis, and the inspection and treatment of pork products. He regards garbage as a more important source of infection to pigs than rats; in this connection, the cooking of such garbage is required by law in Canada.

B.G.P.

## 287—Canadian Journal of Research. Section D. Zoological Sciences.

- a. WARDLE, R. A. & McCOLL, E. L., 1937.—“The taxonomy of *Diphylobothrium latum* (Linné, 1758) in Western Canada.” 15 (9), 163-175.
- b. CAMERON, T. W. M., 1937.—“Studies on the heterophyid trematode *Apophallus venustus* (Ransom, 1920) in Canada. Part III. Further hosts.” 15 (12), p. 275.

(287a) The classificatory value of various characteristics of *Diphylobothrium latum* and the extent of their variability in Canadian material are discussed. Wardle & McColl conclude that the species which occurs in man and dogs in Manitoba is specifically identical with authenticated *D. latum* from Russia, Finland and Japan.

R.T.L.

(287b) Continuing his studies on *Apophallus venustus* [see Helm. Abs., Vol. V, No. 204a; Vol. VI, No. 16b], Cameron has now found that *Amia calva* and *Ictalurus punctatus* can also serve as second intermediaries, the catfish being an excellent food fish. Since eggs like those of *A. venustus* have been found in the faeces of a patient at the local Military Hospital, it is at least probable that man can serve as a definitive host.

B.G.P.



## 288—Canadian Medical Association Journal.

- a. JAMES, E. & BOYD, W., 1937.—“*Echinococcus alveolaris*. With report of case.” 36 (4), 354-356.

## 289—Ceylon Journal of Science. Section D. Medical Science.

- a. GUNAWARDANA, S. A., 1937.—“Intestinal worm survey in 200 post-mortem examinations at the General Hospital, Colombo.” 4 (3), 153-162.

(289a) 26,146 hookworms were obtained from 200 post-mortems. All the worms were *Necator americanus*. 100 worms or less occurred in 74%, 101 to 500 in 22% and more than 500 in 4% of the bodies. The average number of hookworms in cadavers from sanitated areas of Ceylon was 62.2 while from the unsanitated areas it was 165.7.

R.T.L.

## 290—Chinese Medical Journal.

- a. HU, S. M. K., WONG, H. & LI, B. C., 1937.—“A brief survey of filariasis in Foochow and Futsing regions, South China.” 52 (4), 571-578.  
 b. LIU, K., 1937.—“Filariasis in Changsha. A preliminary report.” 52 (4), 579-582.  
 c. OTTO, J. H. F., 1937.—“Pathogenese und pathologische Physiologie der Opisthorchiasis.” 52 (4), 583-590.  
 d. CHU, C. F., 1937.—“Schistosomiasis japonica in Nanking.” 52 (5), 651-664.  
 e. WANG, S. H. & HSIEH, C. K., 1937.—“Roentgenologic study of paragonimiasis of lungs.” 52 (6), 829-842.

(290a) Hu, Wong & Li have found that filariasis is endemic in the Fukien Province, 5.6% of 500 hospital patients and staff in Foochow being infected. Most of the infected had never left Fukien. Four cases involved *Mf. malayi*, the rest *Mf. bancrofti*. Local investigations in the province showed that 7.9% of 151 persons and 22.6% of 115 prisoners were infected with *Mf. bancrofti* in Futsing city, where *Culex fatigans* was implicated as a carrier; and in Lungtien, where there is an elephantiasis incidence of 0.3%, 7.5% of 40 local residents were infected with *Mf. bancrofti*.

B.G.P.

(290b) *Microfilaria malayi* occurred in two out of 80 natives of Changsha chosen at random. *F. bancrofti* has not yet been observed.

R.T.L.

(290c) The mechanical effects of fluke invasion of the liver are less important than those arising from the toxins of the parasites. The nitrogen metabolism of rabbits experimentally infected with *Opisthorchis felineus* has been studied. In heavy infections the urine ammonia is greatly increased indicating diminished urea synthesis. Purin metabolism is greatly disturbed in the later stages. The splitting of uric acid into allantoin is very much retarded. Fluke infested livers contain five times the amount of sulphuric acid as normal livers. When hepatic pulp from infected animals was used the tributyrin splitting effect of normal liver pulp was greatly retarded. The tendency to haemorrhage in opisthorchiasis is attributable to a reduction of fibrinogen and thrombin. The modifications in the bile ducts and the liver

tissue and the lymphoid and eosinophile infiltrations are due to toxic irritation. Malignant growths in the liver usually originate from the bile duct epithelium but parenchymatous cancers also occur.

R.T.L.

(290d) The clinical symptoms seen in 39 cases of *Schistosoma japonicum* admitted to the Central Hospital, Nanking, are described. Of 11 cases treated with Fouadin 5 were failures. Very large doses of Fouadin were required to obtain the necessary therapeutic effect. Neostibosan appeared to be entirely useless. Tartar emetic proved to be the most effective and economical remedy in the author's experience.

R.T.L.

(290e) The lesions of paragonimiasis of the lung give characteristic X-ray shadows. Usually they are fairly well circumscribed isolated patches.

R.T.L.

## 291—Clinica Veterinaria.

- a. LOCORI, E., 1937.—“Cisti da echinococco a localizzazione testicolare.” 60 (2), 117-120.
- b. GAZZI, C., 1937.—“La sclerostomiasi degli equini in A.O.I.” 60 (5), p. 294.

(291b) Gazzi reports heavy infections of *Strongylus equinus* and *S. edentatus* in horses and mules used in the recent Italian expedition in Abyssinia. The usual symptoms were present, and there were two deaths from splenic infarct. Infected animals could not endure long marches.

B.G.P.

## 292—Clujul Medical.

- \*a. GHEORGHIU, C., 1937.—[Case of primary muscular echinococcosis.] 18, 819-824.

## 293—Comptes Rendus des Séances de l'Académie des Sciences.

- a. MATHIAS, P., 1937.—“Cycle évolutif d'un trématode de la famille des Allocreadiidae Stossich (*Allocreadium angusticolle* (Hausmann)).” 205 (15), 626-628.
- b. JOYEUX, C. & BAER, J. G., 1937.—“Recherches sur l'évolution des cestodes de gallinacés.” 205 (17), 751-753.

(293a) Mathias has established experimentally the life cycle of *Allocreadium angusticolle*, parasite of the fishes *Anguilla vulgaris* and *Cottus gobio*. The sporocyst develops in the mollusc, *Neritina fluviatilis*, liberating a cercaria with a bell-shaped tail. This penetrates and encysts in *Gammarus pulex* or *Asellus aquaticus*, which serve as food for the final host.

E.M.S.

(293b) Joyeux & Baer describe the development of the cysticercoids of *Raillietina cesticillus* and of *R. echinobothrida* in their intermediate hosts, using Coleoptera and ants respectively. The minimum time for the development of *R. cesticillus* to cysticercoid stage is 14 days. When taken in by a hen they have attached themselves to the mucosa and begun growth at the end of the second day. Many measurements of the cysticercoids of *R. echinobothrida* are given.

P.A.C.

\* Original not available for checking or abstracting.



## 294—Comptes Rendus des Séances de la Société de Biologie.

- a. ROMAN, E., 1937.—“Hôtes intermédiaires nouveaux d'*Hymenolepis diminuta* (cestodes hyménolépididés).” 126 (24), 26-28
- b. JOYEUX, C. & BAER, J. G., 1937.—“Evolution du *Taenia taeniaeformis* Batsch.” 126 (26), 359-361.
- c. JOYEUX, C. & SAUTET, J., 1937.—“Contribution à l'étude de la culture des microfilaires.” 126 (26), 361-362.

(294a) Roman shows that *Aphodius distinctus*, Scarabeidae and *Anobium paniceum*, Anobiidae are possible intermediate hosts of *Hymenolepis diminuta*. Experimental infections of these insects gave about 50% positive results.

P.A.C.

(294b) When *Cysticercus fasciolaris* is ingested by the definitive host the posterior segmented portion of the young worm disappears and only the anterior part develops to form the adult tapeworm.

R.T.L.

(294c) Joyeux & Sautet have failed to obtain any development or differentiation of the microfilariae of *Dirofilaria immitis* in various media, although there was an undeniable increase in length reaching a maximum in 3 or 4 days.

R.T.L.

## 295—Cornell Veterinarian.

- a. BRITTON, J. W., 1937.—“Studies on the diagnosis of equine strongylosis, with special reference to fecal and blood examinations.” 27 (3), 290-296.
- b. OLSEN, O. W., FENSTERMACHER, R. & POMEROY, B. S., 1937.—“The coyote as a host to *Physaloptera felidis* Ackert, 1936.” 27 (3), p. 327.

(295a) Britton found differential leucocyte counts to vary from day to day in horses; the presence of eosinophilia indicated verminous aneurysm but the absence of eosinophilia did not necessarily mean that aneurysms were absent. An analysis of a table is given in the text regarding the egg counts, leucocyte counts and the presence of aneurysms in a group of horses, but unfortunately no table is printed. The Stoll egg counting method was found applicable to horse faeces. The average egg count of horses under 8 years old at 815 and over 8 years old at 432 was considered evidence in favour of an age resistance. The sex ratio of *Strongylus vulgaris* ranged from 2 to 5 females to one male.

J.W.G.L.

## 296—Deutsches Tierärzteblatt.

- a. WETZEL, R., 1937.—“Zur Bekämpfung der Invasionskrankheiten unserer Haustiere.” 4 (11), 233-235.

(296a) Wetzel briefly discusses some general principles for the control of animal parasites in domestic animals. The damage due to this cause in Germany in 1933 has been estimated at 339 million marks.

B.G.P.

## 297—Deutsche Tierärztliche Wochenschrift.

- a. SCHMID, F. & JOHANNSEN, H., 1937.—“Versuche zur Klärung des Wanderungsweges von Pferdestrongylidenlarven im Tierkörper.” 45 (47), 749-751.

- b. CLAUSSEN, L., 1937.—“Über einen Fütterungsversuch mit Muskelfinnen vom Reh.” 45 (48), 769-771.
- c. SCHMID, F., 1937.—“Parasiten als Todesursache bei Zootieren.” 45 (50), 797-798.

(297a) Schmid & Johannsen found that laboratory animals were of value in the study of the migration of strongyle larvae of horses. In 3 out of 17 guinea-pigs infected with mixed cultures, larvae were detected in the walls of the caecum and colon and in one of them in the liver. Experimental infection of white mice with *Strongylus equinus* led to the following conclusions: the larvae passed through the wall of the caecum and sometimes the wall of the large colon, reaching the peritoneal fluid as early as 19 hours after feeding, where they were found covered with a thick layer of round cells. They then travelled via the mesentery or abdominal cavity to the pancreas and liver. In the case of the mouse the larvae were destroyed in the liver. The various larvae found are figured and described. J.W.G.L.

(297b) Claussen redescribes and figures *Taenia cervi*, and its cysticercus from the roe-deer. After feeding to two dogs 25 and 15 cysts respectively, he obtained 16 tapeworms from one of them. The adult, which is macroscopically similar to *T. ovis*, differs in having 12 to 14 main uterine branches on each side in the gravid segment, as against 20 to 30 in *T. ovis*, and in the location of the testes which extend to the posterior wall of the segment. B.G.P.

(297c) The death of four chimpanzees in the Hanover Zoo is ascribed by Schmid to massive infections with Strongyloides. A female Indian elephant and her daughter both died, at the same zoo, apparently as the result of helminthiasis; there were very heavy infections of hookworms in the small, and strongyles (Strongylinae and Trichoneminae) in the large intestine. B.G.P.

## 298—Deutsche Zeitschrift für die Gesamte Gerichtliche Medizin.

- a. NEUGEBAUER, W., 1937.—“*Cysticercus cellulosae cerebri* als Ursache plötzlichen Todes.” 28, 97-111.

(298a) Neugebauer presents 3 case reports of human cerebral cysticerciasis, 2 involving sudden death and the third without symptoms, and discusses them in relation to other recent reports. B.G.P.

## 299—Ecological Monographs.

- a. RANKIN, J. S., 1937.—“An ecological study of parasites of some North Carolina salamanders.” 7 (2), 171-269.

(299a) More than a thousand salamanders, representing 19 species, have been studied during an entire year. Thirty-eight species of parasites were found including ten trematodes, eight nematodes, two cestodes, one acanthocephalan. Many general and particular observations have been made, notably the higher incidence of parasites in aquatic than in terrestrial hosts, and in lowland regions than in the mountains. In general, the highest



degree of infestation for each species occurs just after the breeding season, i.e., usually during the summer months. This is taken as indicating that infestation occurs usually through water-inhabiting intermediate hosts.

E.M.S.

### 300—Entomologist's Record.

- a. BECK, R., 1937.—“Mermis thread worm (nematode) in wasp (*Vespa vulgaris*).” 49 (67), p. 65.

(300a) Beck records the occurrence of an unidentified Mermithid from *Vespa vulgaris*. Many large worker wasps, resembling queens in size, were recovered from the nest, which was removed from a bank of loose earth in a lane at Bridgwater in the autumn of 1932, and on dissection 8 out of 31 wasps were found to be parasitized.

J.N.O.

### 301—Farmers Weekly.

- a. BYWATER, H. E., 1937.—“The prevention of sturdy in sheep.” 7 (25), p. 33.

(301a) Bywater gives a short popular description of the life history of *Taenia multiceps* and describes the clinical symptoms of sturdy in sheep, suggesting preventive measures.

J.W.G.L.

### 302—Farming in South Africa.

- a. SERFONTEIN, P. J., 1937.—“A national danger to our poultry farming. Spread of worm infestation.” 12 (140), 463, 465.

(302a) Serfontein considers that the losses due to mortality and lowered production among poultry in South Africa as the result of worm infestations must be incredibly heavy. The problem of control is fully discussed and in particular the author points out the value of rearing young chicks indoors or in pens with wired floors.

D.O.M.

### 303—Gazzetta degli Ospedali e delle Cliniche.

- a. POGGIO, E. DI, 1937.—“Filariosi.” 58 (8), 169-175.  
b. MAGGIO, P., 1937.—“Cisti da echinococco non infetta del polmone ed ascesso polmonare pericistico concomitante. (Interventoguarigione).” 58 (16), 368-370.

(303a) Poggio's paper is a general introduction to the various forms of human filariasis and dracontiasis.

B.G.P.

### 304—Geneeskundig Tijdschrift voor Nederlandsch-Indië.

- a. BONNE-WEPSTER, J., 1937.—“Een nieuwe gastheerplant voor de larve van *Mansonina* (*Mansonioïdes*) *uniformis* Theo.” 77 (17), 1055-1056.  
b. GORTER, A. J., 1937.—“De operatieve behandeling van elephantiasis der onderste extremiteiten.” 77 (20), 1236-1242.  
c. MÜLLER, H. & TESCH, J. W., 1937.—“Autochthone infectie met *Schistosoma japonicum* op Celebes.” 77 (36), 2143-2150.

- d. BRUG, S. L. & TESCH, J. W., 1937.—“Parasitaire wormen aan het Lindoe Meer (Oa. Paloe, Celebes).” 77 (36), 2151-2158.
- e. EERKENS, J. W. & HORST, G. A. VAN DER, 1937.—“Een geval van Schistosomiasis japonica te Semarang.” 77 (38), 2305-2310.
- f. EVERSE, J. W. R., 1937.—“Over infectie met *Strongyloides stercoralis*.” 77 (41), 2478-2490.
- g. BRUG, S. L., 1937.—“De vooruitzichten van filaria-bestrijding in Ned.-Indië.” 77 (50), 3202-3206.

(304a) It had previously been shown that *Pistia stratiotes* was essential to the life-cycle of species of *Mansonia*, carrying *Microfilaria malayi*, the female mosquito laying her eggs on the under side of the plant. Bonne-Wepster now finds that the water-hyacinth *Eichhornia crassipes* is a satisfactory plant for *M. uniformis*. B.G.P.

(304c) Müller & Tesch record the first autochthonous case of *Schistosoma japonicum* in Celebes, diagnosed from eggs found in sections of liver and lung, and first mistaken for *Paragonimus*. B.G.P.

(304d) From 98 faecal examinations of persons living near Lindoe Lake (Celebes), Brug & Tesch found *Trichuris* absent, *Ascaris* 3% (mostly infertile eggs), hookworm 35%, *Schistosoma japonicum* 8%, and *Echinostoma ilocanum* 47% (provisional diagnosis in the absence of adults). The last two are the first autochthonous trematode infections recorded from man in the Dutch East Indies. B.G.P.

(304f) Presenting two case reports of *Strongyloides stercoralis* infection, satisfactorily cured with respectively one and two courses of treatment with Fouadin, Everse takes the opportunity of reviewing the recent literature on the life-history of this worm, including the discovery of the parasitic male and of the enteral development of infective larvae. B.G.P.

(304g) Discussing the prospects of filaria control in the Dutch East Indies, Brug points out that in some regions there is no serious disease, in spite of a high filaria-index. In others, however, from 10 to 20% of the population may have elephantiasis, and it is here that control measures are necessary. He deals seriatim with the three possibilities: (i) to attack the intracorporeal stages, (ii) to prevent contact between man and mosquito, (iii) to exterminate the appropriate mosquitoes, and shows that the third is the most promising at present. B.G.P.

### 305—Giornale Italiano di Clinica Tropicale.

- a. WIMEERSCH, H. M. VAN, 1937.—“Nota concernente l'impiego dell'entelmentina nel trattamento dell'anchilostomiasi grave.” New Series, 1 (4), 115-120.
- b. CASTELLANI, A. & JACONO, I., 1937.—“Contributo alla conoscenza della bilharziosi vescicale.” New Series, 1 (6), 163-177.

### 306—Giornale di Medicina Militare.

- \*a. IMPALLOMENI, R., 1937.—“Di 22 casi di bilharziosi urovescicale osservati in Libia.” 85, 259-272.

\* Original not available for checking or abstracting.

**307—Hospital. Rio de Janeiro.**

- a. ALVES MEIRA, J. & SHIZUO HOSOE, I., 1937.—“Sobre um caso de distomatose pulmonar (paragonimíase).” 12 (3), 385-399. [English summary p. 398.]

(307a) Alves Meira & Shizuo Hosoe report a case of paragonimiasis in a Japanese who had lived in Brazil for less than 2 years. Only one case of *Paragonimus* infection had been recorded in Brazil previously. R.T.L.

**308—Hygeia. Chicago.**

- a. CAWSTON, F. G., 1937.—“Schistosomiasis: a peril of river pools.” 15 (6), p. 543.

**309—Indian Journal of Medical Research.**

- a. NAPIER, L. E. & BILLIMORIA, H. S., 1937.—“Haematological studies in Indians. Part VIII. Analysis of the haematological findings in 52 cases of anaemia amongst pregnant tea-garden coolie women.” 25 (2), 529-545.

(309a) While the anaemia rate of the general population in tea gardens in India ranged from 6% to 12%, that of pregnant women was 15.8%. There is strong evidence that hookworm infection is an aetiological factor in the hypochromic microcytic anaemia found in pregnant coolie women, to which is added a hyperchromic macrocytic anaemia in which pregnancy appears to be an important causative factor and has an associated splenic enlargement.

R.T.L.

**310—Indian Journal of Veterinary Science and Animal Husbandry.**

- a. MALKANI, P. G., 1937.—“‘Kumri.’ (Second progress report).” 7 (1), 1-7.

(310a) In this further report on “Kumri” [see Helm. Abs., Vol. II, No. 377a] Malkani concludes from post-mortems on seven cases that “Kumri” is a definite morbid entity because the majority of affected animals present a uniform symptom-complex, and that schistosomes are present in numbers in the liver in every case of “Kumri”.

R.T.L.

**311—Indian Medical Gazette.**

- a. TREWN, H. S., 1937.—“Guinea-worm.” 72 (10), 606-609.  
 b. MAPLESTONE, P. A. & MUKERJI, A. K., 1937.—“Further experience with tetrachlorethylene.” 72 (11), 650-652.  
 c. MAPLESTONE, P. A. & BHADURI, N. V., 1937.—“Gnathostomiasis in human beings.” 72 (12), 713-715.  
 d. SWEET, W. C. & MADHAVEN PILLAI, V., 1937.—“Clearance of *Pistia stratiotes* as a control measure for *F. malayi* infection.” 72 (12), 730-734.

(311a) In the State Hospital of Banswara 526 guinea-worms were extracted. Almost all of these were from residents in the town. The water supply is derived from step-wells. Tartar emetic intravenously injected is chiefly of value in reducing the inflammation. It cannot abort or prevent an attack.

R.T.L.



(311b) Maplestone & Mukerji give an explanation of the low percentages of cures in hookworm cases recorded by them in 1929, and confirm that the drug is efficient in 62% of cases. It is of little value in *Trichuris trichiura*. Of 42 cases of *Enterobius vermicularis* treated, 64.3% were cured with one treatment. The full dose given was 4 c.c., but in the case of children only half doses were administered. R.T.L.

(311c) Notes are given of a fourth case of *Gnathostoma* infection in Bengal. The worm was immature, measuring 2.5 mm. after fixation, and had only 4 rows of spines on the cephalic bulb. The sex had not been differentiated. A short description is given of the various clinical conditions associated with the presence of this aberrant parasite in man. R.T.L.

(311d) In an area centring in Shertalai town in North Travancore the Government has attempted to control the *Microfilaria malayi* infection which had reached 33.7% of the population by periodical clearances of the water plant *Pistia stratiotes* which harboured the vector *Mansonioides annulifera*. The removal of this plant proved an effective measure since no *M. annulifera* have been reported from the catching centres after 1935, while in the controlled area only one child of 3 years 6 months showed *M. malayi* whereas in a control area 23 children of approximately the same age were positive. Seventy-one children 2 years of age and under were all negative while in the control area 19.6% of 56 children of the same age were positive. R.T.L.

### 312—Japanese Journal of Zoology.

- a. YAMAGUTI, S., 1937.—“Studies on the helminth fauna of Japan. Part 20. Larval trematodes from marine fishes.” 7 (3), 491-499.
- b. YAMAGUTI, S. & MIYATA, I., 1937.—“A new tapeworm (*Oochoristica ratti*) of the family Anoplocephalidae from *Rattus rattus rattus* and *R. r. alexandrinus*.” 7 (3), 501-503.
- c. YAMAGUTI, S., 1937.—“A new trematode from *Amyda japonica* (Temm. et Schleg.).” 7 (3), 505-506.

(312a) Yamaguti describes the larval stages of 7 species of trematodes, whose adult forms, as he points out, are mainly parasites of piscivorous fishes. The majority represent only additional host records for the forms already described in 1934 [see Helm. Abs., Vol. III, No. 143a]. A metacercaria from the tail fin of *Acanthogobius flavimanus* is believed to be the larva of *Gotomius platycephali* Yamaguti. The larvae of *Dolichoenterum longissimum* Ozaki are described from various hosts. Larvae from *Acanthogobius hasta* are thought to represent *Stephanochasmus bicoronatus* Looss, while others from *Pseudorhombus pentophthalmus* and *Neoperis sexfasciatus* are referred to the closely related *Echinostephanus hispidus* Yamaguti. Unidentified cysts of *Tormopsolus* were found on *Leiognathus rivulata*. E.M.S.

(312b) *Oochoristica ratti* n. sp. occurs in 2.17% of *Rattus alexandrinus* and 9.38% of *Rattus rattus* captured on board the Taiwan-Shanghai liners. This tapeworm closely resembles *O. brasiliensis* but differs in the host and in the number of testes. In *O. ratti* the latter range from 48 to 84 in two lateral groups which may be continuous behind the vitelline gland in mature segments. R.T.L.

(312c) Yamaguti has now obtained fresh material of a trematode from the intestine of the tortoise, *Amyda japonica*, which in March 1937 he described provisionally as *Kaurma longicirra* Chatterji [see Helm. Abs., Vol. VI, No. 158]. The mature specimens, now described, show a marked difference in egg size, and are now renamed *Kaurma orientalis* n. sp. E.M.S.

### 313—Journal of Agricultural Research.

- a. CHRISTIE, J. R., 1937.—“*Mermis subnigrescens*, a nematode parasite of grasshoppers.” 55 (5), 353-364.

(313a) Christie gives the geographical distribution in the U.S.A. and a description of the life cycle of *Mermis subnigrescens*. This Mermithid appears to be strictly a parasite of grasshoppers and is recorded from 9 naturally or experimentally infested species. The adult parasites occur in the soil from which gravid females migrate to the surface and climb low herbaceous vegetation to oviposit. The method of egg-laying is described and the author mentions that oviposition occurs mainly during June and July and only during rainy days; sunlight is apparently the stimulus that causes egg-laying since oviposition was not observed at night. The eggs, which are described, are never deposited in the soil but adhere to foliage by means of entangling appendages that occur at each pole and, at the time of deposition, each egg contains an infective larva that has moulted at least once. The grasshoppers, which are vulnerable throughout their entire life, ingest the eggs while feeding and, on reaching the alimentary tract, the latter promptly hatch. The larvae immediately penetrate the intestinal wall and reach the body cavity where they develop. After 4 to 10 weeks, when growth is completed, they emerge by forcing their way through the body wall and enter the soil. The escape of the parasite always results in the death of the host. During the next spring the Mermithids moult, pass the ensuing summer and winter in the soil and during the following summer the females proceed to oviposit. The author discusses the economic significance of the parasite and mentions that, in both sexes of host, growth is materially retarded; in the female grasshopper the gonads are markedly inhibited in their development and infested individuals are usually sterile, while the effect on the male gonads is less pronounced. J.N.O.

### 314—Journal de Chirurgie. Paris.

- a. LAPEYRE, J. L., 1937.—“Contribution à l'étude de l'éléphantiasis tropical.” 49 (5), 682-717.

(314a) Lapeyre discusses the factors predisposing to tropical elephantiasis, the various theories as to its pathogenesis, and its medical and surgical treatment. His own observations, based on 40 cases with 40 controls, lead him to discard the theory of filarial origin, at least in most cases, and he produces evidence to show that a parasitic fungus is almost invariably present at the stage when the skin of the affected part has lost its elasticity and has become rugose. He regards the fungus as secondary to a long series of lymphangitic attacks of streptococcal origin. B.G.P.

**315—Journal of the Council for Scientific and Industrial Research.**

- a. ROSS, I. C., CHAMBERLIN, W. E. & TURNER, H. N., 1937.—“The influence of improvement of pastures and rotational grazing on parasitism, body weight, and fleece production in crossbred sheep in Tasmania.” 10 (4), 313-326.

(315a) Ross and his co-workers found that lambs run on improved pasture made better growth and produced more wool than those on natural pasture, although the latter were given supplementary feed and were more lightly stocked on the land. On both types of grazing, sub-groups of lambs drenched with carbon tetrachloride gave better results but there was no evidence that this was due to the control of parasites. Experiments to test the value of rotational grazing, in which paddocks were allowed 3 months rest and one month grazing in one instance and 3 weeks rest and one week grazing in another, showed better results as regards growth, wool production and degree of parasitism than a system of continuous grazing. D.O.M.

**316—Journal of the Egyptian Medical Association.**

- a. MAKAR, N., 1937.—“A preliminary note on bilharzial lesions of the prostatic urethra.” 20 (11), 499-511.  
b. MAKAR, N., 1937.—“Bilharziasis of the gall-bladder.” 20 (11), 512-524.  
c. SMYRNIOTIS, P. C., 1937.—“L'hydrocystogramme et cystogramme, procédé indispensable à l'examen des voies urinaires en Egypte. Tonicité vésicale chez les bilharziques.” 20 (11), 525-552.

**317—Journal of the Florida Medical Association.**

- a. HAHN, T. F., 1937.—“Trichinosis: case report—localization in semicircular canals.” 23 (11), 571-574.

(317a) Hahn follows a summary of the epidemiology, pathology, symptomatology, diagnosis and treatment of trichinosis with a report of a case in which right lateral nystagmus and vestibular symptoms were an unusual complication. V.D.S.

**318—Journal of Helminthology.**

- a. VAN SOMEREN, V. D., 1937.—“The excystment of *Trichinella* larvae in artificial gastric juice.” 15 (4), 177-182.  
b. BUCHANAN, R. M., 1937.—“A comparative study on schistosomiasis in the Berber region of the Anglo-Egyptian Sudan.” 15 (4), 183-202.  
c. GOODEY, T., 1937.—“Observations on the susceptibility of certain varieties of oats to ‘tulip-root’ caused by the stem eelworm, *Anguillulina dipsaci*.” 15 (4), 203-214.  
d. GOODEY, T., 1937.—“On some new hosts of the stem eelworm, *Anguillulina dipsaci*.” 15 (4), 215-220.  
e. EDWARDS, E. E., 1937.—“On the eelworm disease of primulas caused by *Anguillulina dipsaci*, Kühn.” 15 (4), 221-232.  
f. BUCKLEY, J. J. C., 1937.—“On a new species of *Stephanofilaria* causing lesions in the legs of cattle in the Malay Peninsula.” 15 (4), 233-242.  
g. ROEBUCK, A. & HULL, R., 1937.—“The stem eelworm (*Anguillulina dipsaci*): attacks on sugar beet.” 15 (4), 243-245.



(318a) Excystment is accomplished actively by *Trichinella* larvae as soon as the gastric juice has digested part of the cyst wall. The whole cyst is not digested and there is no evidence that the larvae assist their release chemically, but contact of the larvae with fresh fluid at a suitable temperature stimulates movement within the cyst. V.D.S.

(318b) Buchanan gives an interesting account of the incidence of bilharziasis in the Berber Region of the Sudan. He is of opinion that success in the elimination of schistosomiasis will only be achieved by elimination of the intermediate hosts, and suggests a number of measures for sanitary control of which the provision of wells and of latrines are the most essential. R.T.L.

(318c) Goodey has compared the susceptibility to "tulip-root," caused by *Anguillulina dipsaci*, of a number of oat varieties exposed to the same risk of infestation. He has found 2 varieties of winter oats, namely Grey Winter and S.81, which have proved resistant to attack and shown no disease symptoms for 3 successive seasons. T.G.

(318d) Goodey describes the symptoms of disease caused by the stem eelworm, *Anguillulina dipsaci*, in the following new host plants: *Pastinaca sativa* (parsnip), *Primula pulverulenta*, *Primula polyantha* (polyanthus) and *Coronopus Ruellii* (swine-cress). T.G.

(318e) Edwards deals with a serious attack of the stem-eelworm, *Anguillulina dipsaci*, on primulas in a garden in South Wales. He lists the affected species, 26 of which are new host records for the parasite, describes the chief symptoms manifested in leaf and flowering stem, and arranges the species in 4 groups in order of susceptibility. A short final section is devoted to a discussion of control measures. T.G.

(318f) Buckley describes a new species of *Stephanofilaria*, *S. kaeli*, which was found in lesions in the legs of cattle in Kuala Lumpur, F.M.S. The species differs from the other members of this genus mainly in the number and arrangement of the papillae in the tail of the male. The lesion, which appears to be confined to the legs, and is known locally as "Filarial Sore" or "Krian Sore," is described briefly, and an account of its histo-pathology is included. The adult worms occur in the epithelium which is characterized by an exaggerated down-growth of papillary processes. Microfilariae were found in the sore tissue, but in an apparently undeveloped condition. Mature microfilariae found in blood smears from the sore and from the neck of the infected animal are thought to be those produced by the adult parasites. The possibilities of treatment or control of the disease are discussed. J.J.C.B.

(318g) Roebuck & Hull give an account of a cankered condition of the crown of sugar-beet roots grown in Lincolnshire due to an attack of *Anguillulina dipsaci*. The roots came from 26 widely separated farms and the evidence in all cases pointed to the attack taking place late in the season. The source of the infection is unknown. T.G.

## 319—Journal of Laboratory and Clinical Medicine.

- a. WANTLAND, W. W., 1937.—“Blood studies on normal and trichinized white rabbits.” 23 (1), 32-38.
- b. DAMMIN, G. J., 1937.—“The rapid preparation of tapeworm proglottids for diagnostic and teaching purposes.” 23 (2), 192-194.

(319a) Wantland has shown that variations occur in all the factors studied in the blood of normal and trichinized rabbits, except in the osmotic resistance of the erythrocytes. In seven of 12 infected animals, polycythemia occurred as early as the second week after infection, paralleled by an increase in haemoglobin percentage and a rise in specific gravity. Clotting time decreased three to five weeks after infection, and an erythrocytic macrocytosis occurred in most cases less than three weeks after infection. Hypereosinophilia was associated with marked symptoms of trichinosis. V.D.S.

(319b) By fixing gravid tapeworm segments in a modified Bouin's solution for 10 to 12 hours and then treating with sodium hydroxide in 10% solution, the eggs are stained orange, while the remainder of the segment is pale yellow or colourless. The nature of the chemical changes is discussed. R.T.L.

## 320—Journal de Médecine de Lyon.

- a. GARIN, C., 1937.—“Le traitement des taenias de l'homme par le tétrachloréthylène.” 18 (423), 457-458.

(320a) Garin recommends four 1.0 g. capsules of tetrachlorethylene, taken in the morning, fasting, at 10-minute intervals and followed in half an hour by 40 g. magnesium sulphate, against *Taenia* in man. B.G.P.

## 321—Journal of Oriental Medicine.

- a. MORIKAWA, Y. & HUKUDA, S., 1937.—“Parasitic infections observed in Dairen.” 27 (5), 859-870. [In Japanese: English summary p. 121.]

## 322—Journal of Parasitology.

- a. HORSFALL, M. W. & JONES, M. F., 1937.—“The life history of *Choanotaenia infundibulum*, a cestode parasitic in chickens.” 23 (5), 435-450.
- b. McLEOD, J. A., 1937.—“Two new schistosomid trematodes from water-birds.” 23 (5), 456-466.
- c. CANAVAN, W. P. N., 1937.—“Two new species of trematodes, a *Renifer Lechriorchis secundus* n. sp. from *Natrix s. sipedon* and a *Dicrocoelium proxillicens* n. sp. from *Kakatoe sulphurea*.” 23 (5), 478-481.
- d. SANDGROUND, J. H., 1937.—“On a coenurus from the brain of a monkey.” 23 (5), 482-490.
- e. OLSEN, O. W., 1937.—“A new species of bladder fluke, *Gorgoderina tanneri* (Gorgoderidae: Trematoda), from *Rana pretiosa*.” 23 (5), 499-503.
- f. CORT, W. W., McMULLEN, D. B. & BRACKETT, S., 1937.—“Ecological studies on the cercariae in *Stagnicola emarginata angulata* (Sowerby) in the Douglas Lake region, Michigan.” 23 (5), 504-532.
- g. AMERICAN SOCIETY OF PARASITOLOGISTS, 1937.—[Program and abstracts of the summer meeting, June, 1937.] 23 (5), 533-537.

- h. LUTTERMOSER, G., 1937.—“ Factors influencing the development and viability of the eggs of *Nippostrongylus muris*.” 23 (5), 539-540.
- i. CORT, W. W. & BRACKETT, S., 1937.—“ Precocious development of the metacercaria stage of *Diplostomum flexicaudum* in the snail intermediate host.” 23 (5), 545-546.
- j. AMERICAN SOCIETY OF PARASITOLOGISTS, 1937.—“ Program and abstracts of the thirteenth annual meeting.” 23 (6), 547-574.

(322a) Horsfall & Jones have demonstrated the complete life cycle of *Choanotaenia infundibulum* experimentally, recording at the same time 9 new insect vectors. Infective cysts are simple cysticercoids though in a pre-infective stage a tail is apparent. The time necessary for development to the infective stage varies from 20 days in *Melanoplus femurrubrum* at from 75° to 90°F. to 48 days in *Aphodius granarius* at from 60° to 75°F. Infective cysts from the beetle and grasshopper show slight morphological differences.

P.A.C.

(322b) In Western Canada the blue-winged teal, *Querquedula discors*, harbours a minute schistosome species, *Pseudobilharziella querquedulae* n. sp., to the extent of 60%. The male only is described. A new species of *Ornithobilharzia* named *O. lari* n. sp. is also recorded. This occurred in *Larus argentatus* in Nova Scotia. The intermediate host is unknown. Dermatitis-producing non-human schistosome cercariae are abundant in *Limnaea stagnalis* and *Stagnicola palustris*.

R.T.L.

(322c) Canavan describes *Lechriorchis secundus* n. sp. from the oviduct of *Natrix s. sipedon*, and *Dicrocoelium proxillicens* n. sp. from the bile duct of *Kakatoë sulphurea*. The new species are related to *Lechriorchis primus* Stafford and *Dicrocoelium illiciens* Brn. respectively.

E.M.S.

(322d) A natural infection of the brain of *Cercopithecus nictitans* with a ramifying Coenurus is recorded. Sandground suggests that as this material throws doubt on the duality of *Multiceps multiceps* (Leake) and *M. serialis* (Gervais) a repetition of Bailler's cross-infection experiments is desirable.

R.T.L.

(322e) Olsen subdivides the genus *Gorgoderina* on the basis of relative size of suckers. *G. tanneri* n. sp. belongs to the group in which the acetabulum is more than twice the size of the oral sucker. A key is given to distinguish all the species of the genus.

E.M.S.

(322f) Cort and his associates have compiled a very great deal of information on the varying incidence of infestation in *Stagnicola emarginata angulata*. In all 17 species of cercariae were found, some with great regularity. The occurrence of double and triple infections was usually that which might be expected from the operations of chance. There is some evidence that certain species are mutually antagonistic, as they seldom or never occur in combination. Some conclusions are drawn with regard to life cycles, from the relative abundance at different seasons of the year.

E.M.S.

(322g) The following papers of helminthological interest were presented to the American Society of Parasitologists: (i) G. W. Hunter, “ Studies on host reactions to larval parasites. II. Comparison of two flesh-penetrating cercariae.” (ii) T. B. Magath, “ The geographic distribution of *Diphyllbothrium latum*.” (iii) J. F. Mueller, “ The life history of *Diphyllbothrium*



*mansonoides* with some consideration with regard to sparganosis in the United States." (iv) J. N. Shaw, "Carbon tetrachloride poisoning in sheep." (v) R. A. Wardle, "Taxonomic status of *Diphylllobothrium latum* in Western Canada." (vi) R. A. Wardle, "The influence of *Diphylllobothrium latum* infestation upon dogs." (vii) J. W. Scott, "The *Diphylllobothrium* species found in the Yellowstone Park region." All but the last are abstracted.

B.G.P.

(322h) Luttermoser gives a few notes on the influence of various temperatures and relative humidity on the viability of *Nippostrongylus muris* eggs in water. Exposures to temperatures of  $-5^{\circ}\text{C}$ . and  $35^{\circ}\text{C}$ . were 100% lethal within 10 hours and a relative humidity of 42% at  $25^{\circ}\text{C}$ . was 95% lethal in 5 minutes and 100% lethal in 10 minutes.

J.W.G.L.

(322i) Cort & Brackett have found, in connection with their work on *Stagnicola emarginata angulata* [see above No. 322f], that a percentage of snails infected with *Diplostomum flexicaudum* harbour also diplostomula, which are identical with the normal metacercaria of *D. flexicaudum* as found in the eye of the sucker. They are smaller in size and are believed to be formed always within the sporocyst.

E.M.S.

(322j) The programme of the thirteenth annual meeting of the American Society of Parasitologists contains the following papers or demonstrations of helminthological interest. Abstracts are given of all papers except the presidential address (No. xix). (i) A. C. Chandler "The nature and mechanism of local immunity in parasitic infections"; (ii) J. E. Ackert & W. M. Reid "Age resistance of chickens to the cestode *Railletina cesticillus* (Molin)"; (iii) R. M. Cable "The resistance of the herring gull, *Larus argentatus*, to experimental infections of the trematode, *Parorchis acanthus*"; (iv) J. S. Andrews "Acquired resistance in sheep to superinfection with a nematode, *Cooperia curticei*"; (v) G. W. Luttermoser "Resistance of rats and mice to infection with *Capillaria hepatica*"; (vi) J. T. Culbertson & S. S. Kaplan "Passive immunity in experimental trichiniasis"; (vii) G. F. Otto, K. B. Kerr & J. W. Landsberg "The immunity to the hookworm, *Ancylostoma caninum*, acquired by dogs as a result of previous infection"; (viii) M. P. Sarles "The *in vitro* action of immune rat serum on *Nippostrongylus muris* (Nematoda)"; (ix) W. H. Taliaferro & M. P. Sarles "Cellular reactions during immunity to *Nippostrongylus muris* in the rat"; (x) J. G. Arnold, jr., & T. L. Duggan "Immunological studies with *Dirofilaria immitis*"; (xi) J. F. Mueller & O. D. Chapman "Resistance and immunity reactions in infections with *Sparganum mansonoides*"; (xii) W. H. Wright & J. Bozicevich "Dermal and intradermal skin reactions in oxyuriasis"; (xiii) C. B. Philip "A parasitological reconnaissance in Alaska with particular reference to varying hares"; (xiv) H. J. Van Cleave "Status of the generic name *Profilicollis* of A. Meyer"; (xv) W. H. Leigh "The life cycle of a trematode of frogs"; (xvi) W. W. Cort & S. Brackett "A new strigeid cercaria which produces a bloat disease in tadpoles"; (xvii) J. H. Walker "Experimental studies on trematodes belonging to the subfamily Reniferinae"; (xviii) L. J. Thomas "Life cycle of a fluke *Halipegus eccentricus* n. sp., found in the ears of frogs"; (xix) G. R. La Rue "Life history studies and their relation to problems in taxonomy of digenetic trematodes"; (xx) H. W. Manter

"Modifications of the acetabulum in trematodes"; (xxi) R. W. Macy "Further studies on prosthogonimiasis"; (xxii) E. E. Dickerman "Cystocercous cercariae of the *Mirabilis* group from Lake Erie snails"; (xxiii) S. Smith "Some cystocercous cercariae from Alabama and Florida"; (xxiv) R. F. Nigrelli & H. W. Stunkard "Giant trematodes from the wahoo, *Acanthocybium solandri*"; (xxv) H. L. Ward "Studies on the life history of *Neoechinorhynchus cylindratus* (Van Cleave, 1913)"; (xxvi) E. B. Cram & L. Reardon "Studies on oxyuriasis. XII. Epidemiological findings in Washington, D.C."; (xxvii) L. O. Nolf & J. M. Edney "The larval production of *Trichinella spiralis* in rats given graduated numbers of larvae"; (xxviii) T. von Brand, G. F. Otto & E. Abrams "Studies on forced calcification in experimental *Trichina* infections"; (xxix) J. F. Mueller "Studies on the oral transfer of *Sparganum mansonoides* and on the nature of *Sparganum proliferum*"; (xxx) N. R. Stoll "Rates of acquisition by grazing sheep of *M. expansa* and what they reveal of the available pasture infestation"; (xxxi) H. W. Stunkard "The life cycle of anoplocephaline cestodes"; (xxxii) M. A. Stewart & J. R. Douglas "Studies on the bionomics and seasonal incidence of *Trichostrongylus axei* (Cobbold)"; (xxxiii) H. S. Cameron & M. A. Stewart "Studies on the course of trichostrongyle infestation in sheep"; (xxxiv) H. W. Brown "Some observations on the epidemiology of the dog heartworm (*Dirofilaria immitis*)"; (xxxv) G. L. Graham "Seasonal changes in the frequency with which single *Strongyloides ratti* produce progeny of indirect development"; (xxxvi) A. J. Sheldon & G. F. Otto "Infection of guinea-pigs with *Strongyloides ratti*"; (xxxvii) C. H. Willey "The development of *Zygocotyle* from *Cercaria poconensis* Willey, 1930"; (xxxviii) F. G. Meserve "Some monogenetic trematodes from the Galapagos Islands and the neighbouring Pacific"; (xxxix) M. F. Jones, E. B. Cram & W. H. Wright "Studies on oxyuriasis. XIII. Problems presented by a family of seven, all infested with pinworms"; (xl) L. J. Thomas "Further studies on the life cycle of *Contracaecum spiculigerum*"; (xli) L. J. Thomas "Life cycle of *Raphidascaris canadensis* Smedley, 1933. A nematode from the pike, *Esox lucius*"; (xlii) T. von Brand "Physiological observations on a larval *Eustrongylides*"; (xliii) G. W. Hunter III & W. S. Hunter "Studies on host reactions to larval parasites. III. An histolytic ferment from the cercariae of *Cryptocotyle lingua* (Creplin)"; (xliv) J. E. Alicata "*Trichinella spiralis* and *Leptosira icterohemorrhagiae* in the Hawaiian Islands"; (xlv) E. E. Wehr "Studies on the development of the pigeon capillariid, *Capillaria columbae*"; (xlvi) A. O. Foster "The occurrence of *Trichostrongylus axei* (Cobbold) in equines of Panama"; (xlvii) L. O. Nolf & J. D. Crum "On the production and migration of the larva of *Trichinella spiralis*"; (xlviii) L. O. Nolf "The transplantation of gravid *Trichinella spiralis*". B.G.P.

### 323—Journal of Pediatrics.

- a. FAUST, E. C., DWYER, H. L. & CASPARIS, H., 1937.—"Round table discussion on intestinal parasitic infestations in children." 10 (4), 542-561.

(323a) Present-day knowledge of the helminth infestations of children, viz., ascariasis, hookworm disease, oxyuriasis, trichinosis and tapeworms, is reviewed. Hexylresorcinol cystoids in hard gelatin capsules is considered

to be the most effective drug for ascariasis. Tetrachlorethylene in doses not exceeding 3 minims for each year of age preceded and followed by a saline purgative is recommended for hookworm. For delicate children hexylresorcinol crystoids may be substituted although its efficacy is only 75%. It is recalled that a balanced diet with the addition of iron or liver may transform to normal a patient gravely ill from hookworm disease even without removal of the worms. For oxyuriasis hexylresorcinol crystoids by the mouth should be supplemented by a retention enema made up of 1 in 1,000 alkaline solution of hexylresorcinol S. T. 27 introduced into the caecum after the faeces have been removed from the large bowel by an ordinary enema of tepid water. For tapeworms the oleoresin of male fern is recommended in hard capsules or for children through a duodenale tube, followed by purgation 2 hours later. The dose is 2 to 3 minims of the pure drug for each year of age. Faust states, without giving the evidence upon which he relies, that persistent infestation with *Oxyuris* is due to internal re-infestation. R.T.L.

### 324—Journal of the Philippine Islands Medical Association.

- a. AFRICA, C. M., LEON, W. DE & GARCIA, E. Y., 1937.—“Heterophyidiasis: VI. Two more cases of heart failure associated with the presence of eggs in sclerosed valves.” 17 (10), 605-609.

(324a) Out of 15 consecutive autopsies on Filipinos in Manila 3 cases occurred in which adult flukes belonging to the genus *Monorchotrema* were found in the intestine. In 2 of these the heart was enlarged with sclerosis and calcification of the valves. Eggs were associated with lesions in the myocardium and valves as in the cases previously reported by the author.

R.T.L.

### 325—Journal of the Public Health Association of Japan.

- a. YAMAGISHI, M., HARADA, Y. & MORITANI, K., 1937.—“On the merits of various helminthics against roundworms.” 13 (3), 16-29. [In Japanese.]

### 326—Journal of Tropical Medicine and Hygiene.

- a. LANE, C., 1937.—[Lymphangitis and filariasis in the West Indies.] [Correspondence.] 40 (8), p. 100.
- b. LANE, C., 1937.—“Filarial periodicity.” 40 (21), 262-263.
- c. CAWSTON, F. G., 1937.—“Bilharzia disease.” 40 (24), 318-322.

(326a) Lane summarizes the work of Drinker who has produced elephantiasis experimentally in dogs by repeated injections of quinine hydrochloride solution and a suspension of very fine crystalline silica. Spontaneous attacks of lymphangitis due to  $\beta$ -haemolytic streptococcus supervened when elephantiasis had set in. The protein content of the lymph was about doubled. With the onset of an attack of lymphangitis the growth of the elephantiasis was quickened.

R.T.L.

### 327—Klinische Wochenschrift.

- a. KRAYER, O., 1937.—“Kürbissamen als Bandwurmmittel.” 16 (47), 1651-1652.



(327a) Impressed by the wide use of pumpkin seeds as a taenifuge in Syria, where massive doses are given (400 to 700 g. for an adult), Krayser has tested this drug in tapeworm-infested dogs and in 5 human cases. The unknown active principle is contained mainly in the kernel, is absent from the oil which amounts to 30% of the seeds, and can be extracted with boiling water—the oil being subsequently decanted off. The drug is effective only when followed by a purgative. Doses of 5 g. in dogs and 30 g. in man, representing 5 to 10% of the original weight of seeds, were effective; although no scolices were recovered from the human cases, the worms did not reappear after two years.

B.G.P.

### 328—Liège Médical.

- \*a. BENEDEN, VAN, DEROUAUX, HOUYEZ & MASSON, H., 1937.—“Kyste hydatique du poumon.” 30, 247-260.

### 329—Meddelelser fra Statens Forsøgsvirksomhed i Plantekultur, København.

- a. ANON, 1937.—“Havreallens Levevis og Bekaempelse.” No. 93, 4th edit., 4 pp.

(329a) A general account of the morphology and life-cycle of the oat-strain of *Heterodera schachtii* is given. A period of 8 years' rest from cereals is recommended to free land from infection; free larvae are said to survive one year in the soil without the host plant. As control measures the cultivation of resistant varieties of oats and the adoption of suitable rotations are advised.

M.J.T.

### 330—Medicina. México.

- \*a. CASIS SACRE, G. & RICO BUSTAMANTE, F., 1937.—“Oncocercosis.” 17, 88; 114.

### 331—Medicina de Hoy.

- a. FERMOSELLE BACARDI, J. & BRENES, R., 1937.—“El parasitismo intestinal en la Escuela Leonides Briceño.” 2 (1), 4-7.  
 b. ARENAS y MARTORELL, R. & ALVAREZ GONZALEZ, J. R., 1937.—“Profilaxis de la distomatosis hepática.” 2 (2), 90-97.  
 c. SORONDO CAMPANERIA, E., 1937.—“Contribución al estudio de la terapéutica del parasitismo intestinal. El *Chenopodium anthelminticum* y sus intoxicaciones.” 2 (6), 357-366.

(331a) Bacardi & Brenes report helminths in the faeces of 97.3% of 148 school children from Nicoya. *Ascaris*, hookworm and *Trichuris* head the list, in that order. The favourable influence of foot-wear on the incidence of hookworm is shown.

B.G.P.

(331b) The incidence of *Fasciola hepatica* in Cuba is not known in detail. From the aspect of control, Martorell & Gonzalez suggest that the whole country should be taken as infected. They outline the life-history and propound the usual control measures. The successful use of emetine

\* Original not available for checking or abstracting.

hydrochloride against this parasite in man suggests its trial for animals also. The local intermediary is probably *Praticolella griseola*. B.G.P.

(331c) Sorondo Campaneria has studied the pharmacology and toxicity of oil of chenopodium including the doses for adults and children recommended by Brown [see Helm. Abs., Vol. III, No. 145a]. He agrees with Brown that a single dose of oil of chenopodium is sufficient to eliminate from 60 to 70% of *Necator*, 90 to 99% of *Ascaris*, and large numbers of *Trichocephalus*, *Enterobius vermicularis* and *Hymenolepis nana*, and considers that oil of chenopodium is the most efficient anthelmintic against ascariasis and ancylostomiasis. The details of 2 cases of intoxication with the drug are given, one of which proved fatal. K.S.

### 332—Medicina del Lavoro.

- \*a. MAZZITELLI, M., 1937.—“La scomparsa del *Necator americanus*.” 28, 54-61.

### 333—Mémoires du Musée Royal d'Histoire Naturelle de Belgique.

- a. SCHUURMANS STEKHOVEN, jr., J. H., 1937.—“Résultats scientifiques des croisières du navire-école belge ‘Mercator.’ Volume I. III. Nematoda parasitica.” Ser. 2, Fasc. 9, 27-42.

(333a) A collection of 8 Ascaroidea is described. Of these 3 are new, viz., *Multicaecum acuticauda* n. sp. and *Angusticaecum braziliense* n. sp. from *Caiman niger*, and *Contracaecum crenulatum* n. sp. from *Cancroma cochlearia* in Brazil. The female of *M. acuticauda* is differentiated from *M. helicina* which also occurred in *Caiman niger*. R.T.L.

### 334—Memorias do Instituto Oswaldo Cruz.

- a. FREITAS, J. F. TEIXEIRA DE & LENT, H., 1937.—“Segunda especie do genero *Filaria* Mueller, 1787, s. str.” 32 (3), 423-426.  
 b. PROENÇA, M. C., 1937.—“Revisão do genero *Aspidodera* Railliet & Henry, 1912 (Nematoda: Subuluroidea).” 32 (3), 427-438.  
 c. FREITAS, J. F. TEIXEIRA DE & LENT, H., 1937.—“Sobre *Oswaldofilaria brevicaudata* (Rodhain & Vuylsteke, 1937) n. comb. (Nematoda: Filarioidea).” 32 (3), 439-442.  
 d. LENT, H. & FREITAS, J. F. TEIXEIRA DE, 1937.—“Dirofilariose subcutanea dos cães no Brasil.” 32 (3), 443-448.  
 e. LENT, H. & FREITAS, J. F. TEIXEIRA DE, 1937.—“Pesquisas helmintologicas realizadas no Estado do Pará. I. Trematoda: Fascioloidea.” 32 (3), 449-460.

(334a) A second species of the restricted genus *Filaria* as typified by *Filaria martis* has been found in the subcutaneous tissues of *Conepatus chilensis* in Brazil. It is succinctly described and figured under the name *Filaria carvalhoi* n. sp. R.T.L.

(334b) The nematode genus *Aspidodera* as revised by Proença contains 9 species of which 2 are described here for the first time, viz., *A. anscripta* n. sp. for *A. fasciata* of Yorke & Maplestone, 1926 and *A. vazi* n. sp. from the large intestine of *Tatus novemcinctus* in Brazil. R.T.L.

\* Original not available for checking or abstracting.

(334c) The species *Breinlia brevicaudata* has been transferred to the genus *Oswaldofilaria*. R.T.L.

(334d) *Dirofilaria repens* is reported from the subcutaneous tissues of the dog in S. Paulo, Brazil. The various morphological differences between this species and *D. immitis* are shown in tabular form. Its relation to *D. acutiuscula* Molin, 1858 is discussed. R.T.L.

(334e) Helminthological material collected from 67 animals dying in the Zoological Gardens in Belém, capital of Para, Brazil, comprised 9 Acanthocephala, 9 Trematoda, 10 Cestoda and 60 Nematoda. Of the 4 trematode species which are described in this first communication one is new, viz., *Telorchis hagmanni* n. sp., from the stomach of *Podocnemis expansa*. R.T.L.

### 335—Minerva Medica. Torino.

- a. MARIANI, G., 1937.—“Considerazioni sulle malattie infettive e parassitarie verificatesi in Somalia durante l'ultima guerra coloniale.” Year 28, 1, 79-83.
- b. VANNI, V., 1937.—“Grandi figure della parassitologia italiana e suo odierno sviluppo.” Year 28, 1, 159-162.

(335a) In an article devoted to infectious and protozoal diseases diagnosed in Italian Somaliland during the Abyssinian war, Mariani mentions in passing the relative absence of ancylostomiasis, and records a single case of intestinal schistosomiasis which was probably not autochthonous. B.G.P.

### 336—Münchener Tierärztliche Wochenschrift.

- a. HEIDEGGER, E., 1937.—“Feststellung und Bekämpfung der Invasionskrankheiten unserer Haustiere.” 88 (49), 577-580.

(336a) Opening with an account of the economic effects of parasitism in domesticated animals, Heidegger goes on to discuss in very general terms the diagnosis of parasitic infections and their treatment and control, concluding with an appeal for a concerted attack on them by agriculture, veterinary medicine, and biological science. B.G.P.

### 337—Nature.

- a. DAVEY, D. G., 1937.—“Physiology of nematodes.” 140 (3545), p. 645.

(337a) Davey finds that certain nematodes of sheep are killed by periods of oxygen lack exceeding 48 hours and concludes that they have an aerobic existence. The lower limit of acidity tolerated by *Ostertagia circumcincta* is not low enough to allow it to live in the stomach of the dog, horse or the abomasum of cattle, and the lower limits without adverse effect on the species which live in the small intestine are not low enough for them to parasitize the abomasum. The distribution of various nematode species in the small intestine is correlated with the varying effect of sodium glycholate and sodium taurocholate upon them. There is evidence suggesting that the nematodes of the alimentary tract synthesize haemoglobin. No definite indication of their actual food was obtained. R.T.L.



### 338—Nederlandsch-Indische Bladen voor Diergeneeskunde en Dierenteelt.

- a. SIKAR, 1937.—“Onderzoek op wormeieren en coccidiën in de faeces bij geiten.” 49 (3), 225-227.

(338a) Examining the faeces of 118 goats recently imported from India, and finding *Haemonchus* in 107, coccidia in 94, and *Trichuris* in 2, Sikar concludes that heavy infections may occur in the absence of clinical symptoms.

B.G.P.

### 339—New Zealand Journal of Agriculture.

- a. MUGGERIDGE, J. & COTTIER, W., 1937.—“Black-currant-bud eelworm in New Zealand.” 55 (4), 209-215.

(339a) Muggeridge & Cottier give an account of bud disease of black currant bushes in New Zealand caused by *Aphelenchoides ribes*. They describe the chief symptoms shown by affected shoots and discuss a number of suggested measures of control.

T.G.

### 340—Onderstepoort Journal of Veterinary Science and Animal Industry.

- a. ORTLEPP, R. J., 1937.—“Observations on the morphology and life-history of *Gaigeria pachyscelis* Raill. and Henry, 1910: a hookworm parasite of sheep and goats.” 8 (1/2), 183-212.

(340a) Ortlepp describes in detail the life-history of *Gaigeria pachyscelis* based on experimental infections in sheep. Infection could only be brought about through the skin, oral administration proving negative. After entering the skin the larvae were presumably carried by the blood stream to the lungs. They left the lungs about the 13th or 14th day by way of the trachea, mouth and oesophagus, reaching the small intestine where they became adult about the 10th week after infection. A description of the larval stages and adolescent females is included, special reference being made to cephalic and cervical glands and the male and female genitalia. The parasite is very common in South Africa and it is also recorded as a natural infection in an Indian antelope, *Boselaphus tragocemalus*.

J.W.G.L.

### 341—Parasitology.

- a. CHEN, H. T., 1937.—“Some parasitic nematodes from mammals of South China.” 29 (4), 419-434.  
 b. WEBB, J. L., 1937.—“The helminths of the intestinal canal of man in Mauritius; and a first record of *Trichostrongylus axei* locally.” 29 (4), 469-476.  
 c. JEPPE, M. W., 1937.—“Note on Apstein's parasites and some very early larval Platyhelminthes.” 29 (4), 554-558.

(341a) Chen gives descriptions of 4 known species of nematodes from mammals of the Kwangtung Province of South China, viz., *Rictularia*

*mjöbergi*, *Ascarops dentata*, *Pseudophysaloptera soricina*, and *Uncinaria longespicalum* of which *U. philippinensis* Chitwood and *U. longispicula* Sand-ground are considered to be synonyms. R.T.L.

(341b) From the faeces of 336 patients in Mauritius, Webb has obtained eggs of *Necator americanus* 98.5%, *Ternidens deminutus* 0.9%, *Ancylostoma braziliense* 0.9%, and a trichostrongyle 8.0%. One of the trichostrongyle cases came from Réunion. A male and a female *Trichostrongylus axei* were obtained and are described. Eggs of *Heterodera marioni* were not infrequently seen. The helminth species already recorded are *Trichuris trichiura*, *Ascaris lumbricoides*, *Strongyloides stercoralis*, *Enterobius vermicularis*, *Necator americanus*, *Schistosoma haematobium*, *Taenia saginata*, *T. solium*, *Raillietina madagascariensis*, and *Bertiella studei*. R.T.L.

(341c) As Apstein (1911) is the only worker who has dealt with parasites of marine pelagic Crustacea in general, Miss Jepps has tried to identify the various forms recorded by him. Those belonging to the Platyhelminthes are larval *Ichthyosporidium*. The nematodes of very different sizes have been identified by Marshall as *Contracaecum* sp. R.T.L.

### 342—Phare Médical.

- \*a. STAYITCH, 1937.—“L'helminthiase chez les enfants peut-elle provoquer des symptômes méninges?” No. 170.

### 343—Philippine Journal of Science.

- a. TUBANGUI, M. A. & MASILUNGAN, V. A., 1937.—“Tapeworm parasites of Philippine birds.” 62 (4), 409-438.

(343a) Tubangui & Masilungan have obtained 19 species of cestodes from birds in the Philippine Islands. Of these 15 are new to science and 8 of these belong to the genus *Raillietina* in its widest sense. They are *R. daetensis* n. sp. from *Treron* sp.; *R. sequens* n. sp. from the columbiform bird *Streptopelia dussumieri*; *R. torquata* (Meggett, 1924) var. *rajae* n. var. from a pigeon; *R. (Paroniella) tinguiana* n. sp. from a wild *Gallus gallus*; *R. (P.) cirroflexa* n. sp. from a woodpecker, *Lichtensteinipicus funebris*; *R. (P.) coronea* n. sp. from a crow, *Corone philippina*; *R. (P.) culiauana* n. sp. from an oriole, *Oriolus acrorhynchus*; and *R. (P.) bulbularum* n. sp. from *Pycnonotus goiavier*. The other new species are *Cotugnia ilocana* n. sp. obtained from *Streptopelia dussumieri*, and *C. rimandoi* n. sp. from a pigeon. The Hymenolepididae are represented by *Hymenolepis coronoidis* n. sp. from a crow; *H. pycnonoti* n. sp. from *Pycnonotus goiavier*; and *Hymenolepis* sp. (two poor specimens only) from *Iole gularis*; *Diorchis visayana* n. sp. from *Gallinula chloropus*; and *Haploparaxis sanjuanensis* n. sp. from *Gallinago megala*. A buzzard, *Butastur indicus*, provides the new species *Kowalewskiella buzzardia* n. sp. *Aporina delafondi*, *Fuhrmanniella clerci* and *Gyrocoelia paradoxa* are recorded for the first time from the Islands. P.A.C.

### 344—Poliflinico (Sezione Chirurgica).

- a. MILLUL, G., 1937.—“Contributo allo studio delle cisti da echinococco del rene.” 44 (3), 154-162.

\* Original not available for checking or abstracting.

## 345—Policlinico (Sezione Pratica).

- a. CICCHITTO, A. M. & CICCHITTO, E., 1937.—“L'anchilostomiasi nei paesi caldi.” 44 (41), 1936-1949.
- b. PENSO, G., 1937.—“Sulla terapia della ossiuriosi.” 44 (51), p. 2466.

## 346—Poultry Science.

- a. WEHR, E. E., 1937.—“A note on the incidence of *Syngamus trachea* in turkeys, with observations on nodules caused by this parasite.” 16 (5), 331-334.

(346a) From an examination of nearly 1,000 tracheas from turkeys in the Washington, D.C. district, Wehr finds that *Syngamus trachea* is slightly less prevalent than it was a few years ago. Nodular formation is fairly common, the head of the male worm being generally embedded. Histological descriptions of the nodular tissue are given. P.A.C.

## 347—Prensa Médica Argentina.

- a. REPETTO, R. L., 1937.—“Hidatidosis costal.” 24 (21), 1052-1083.
- b. SPANGENBERG, J. J., BASILE, A. R. & GIANNI, L. DI, 1937.—“Cisticercosis subcutánea y muscular.” 24 (25), 1239-1243.
- c. BATTAGLIA, A. & FIORE, H. DI, 1937.—“Apendicitis a oxiurus.” 24 (27), 1349-1359.
- d. ARENAS, N., BETTINOTTI, A. E. & BLANCHARD, O., 1937.—“Quiste hidático del ligamento ancho.” 24 (36), 1756-1760.
- e. BEAUX, A. R., 1937.—“Quistes hidáticos del tejido celular subcutáneo.” 24 (37), 1810-1815.

## 348—Presse Médicale.

- a. COSTANTINI & OULIÉ, 1937.—“Contre la décortication des kystes hydatiques.” 45 (24), 449-450.
- b. MIRIZZI, P. L., 1937.—“Kystes hydatiques de la rate: splénectomie.” 45 (36), 684-685.

## 349—Proceedings of the National Academy of Sciences, India.

- a. VIDYARTHI, R. D., 1937.—“Studies on the family Diplostomidae, Poirier. Part I. Two new parasites of the genus *Diplostomum* v. Nordmann from Indian carnivorous birds.” 7 (1), 22-28.

(349a) Vidyarthi describes *Diplostomum ketupanensis* n. sp. from *Ketupa zelonensis handwickii* and *D. buteii* n. sp. from *Buteo rufinus rufinus*. Both trematodes have the posterior testis drawn out into almost the shape of H, and are best distinguished from each other by the distribution of the vitellaria.

E.M.S.

## 350—Proceedings of the Royal Society of Medicine.

- a. McMULLEN, W. H., 1937.—“*Filaria bancrofti* in the interior of the eye.” 31 (2), 128-130.

(350a) A very young nematode was seen by the ophthalmoscope in the aqueous chamber of the eye of an Indian in whose blood *Microfilaria bancrofti* were present in fair numbers. There was an eosinophilia of 27%. R.T.L.



### 351—Proceedings of the Society for Experimental Biology and Medicine.

- a. WALKER, J. H., 1937.—“Experimental studies on eggs and miracidia of *Renifer amiarum* (Leidy, 1891) and *Dasymetra villicaeca* (Byrd, 1935).” 37 (1), 246-248.

(351a) *Renifer amiarum* and *Dasymetra villicaeca* are added to the list of trematodes whose eggs are known to hatch only after ingestion by the intermediate host, in this case the snail *Physa halei*. During the winter months incubation at 25° to 30°C. was found to be necessary to produce infective eggs. Sections of infected snails have shown all stages from the hatching of the egg and penetration of the miracidium to the final emergence of the cercariae, but no illustrations are given.

E.M.S.

### 352—Proceedings of the Zoological Society of London. Series B. Systematic and Morphological.

- a. WOODLAND, W. N. F., 1937.—“Some cestodes from Sierra Leone. II. A new Caryophyllaeid, *Marsypocephalus*, and *Polyonchobothrium*.” 107 (2), 189-197.
- b. BHALERAO, G. D., 1937.—“On a remarkable Acanthocephala from a fowl in India.” 107 (2), 199-203.
- c. BHALERAO, G. D., 1937.—“On *Pneumotrema travassosi*, gen. et sp. n., and two other trematode parasites from the animals dying in the Zoological Society's Gardens during 1936-1937.” 107 (3), 365-369.

(352a) Woodland describes *Marsypocephalus daveyi* n. sp. and points out that all four species of this genus are probably from the same host, *Heterobranchus bidorsalis*, although from different localities. *Polyonchobothrium gordoni* n. sp. is from the same host. *Stocksia pujchuni* n. g., n. sp. belongs to the subfamily Lytocestinae of the Caryophyllaeidae, but differs from other genera mainly in having crescentic rather than annular vitellaria. Its related genera, *Lytocestus* and *Monobothrioides* are revised, the former retaining only its type species *L. adhaerens*. The host of *Stocksia pujchuni* is also a siluroid fish *Clarias lazera*.

E.M.S.

(352b) Bhalerao describes *Leiperacanthus gallinarum* n. g., n. sp. from a single female found in the intestine of a domestic fowl in India. The worm belongs to the Palaeacanthocephala, but as it possesses two pairs of paraproboscideal sacs, not hitherto described from any form, it is made the type of a new family, the Leiperacanthidae.

E.M.S.

(352c) Bhalerao assigns his new genus, *Pneumotrema*, to the Plagiorchiidae, setting it apart from all other members of the family only on the entirety of its characters. There is one species, *P. travassosi* n. sp., from the lung of a lizard, *Amphisbaena alba*. *Gongylura vaginata* is also reported from *Gypagus papa*.

E.M.S.

### 353—Public Health Reports. Washington.

- a. CRAM, E. B., JONES, M. F., REARDON, L. & NOLAN, M. O., 1937.—“Studies on oxyuriasis. VI. The incidence of oxyuriasis in 1,272 persons in Washington, D.C., with notes on diagnosis.” 52 (43), 1480-1504.

(353a) Cram and her co-workers have found that, of a general population group of 628 persons, 35.4% were positive for oxyuriasis, whilst of 617 boys from a training school, 3.7% were positive. The data are fully analysed by sex, age, and race and show that age is not an important factor except in so far as incidence is slightly higher during school years. The paper is largely concerned with establishing the efficacy of diagnosis by swabbing the perianal region with a cellophane-tipped glass rod ("NIH swab"), and the data are analysed to show the effect of taking various numbers of swabs (from 1 to 18) from the same person. Thus, only 66.7% of the positives were positive on all swabs, and 19.4% were negative on the first swab. B.G.P.

### 354—Publications. Faculty of Medicine, Egyptian University.

- a. NAGATY, H. F., 1937.—"Trematodes of fishes from the Red Sea. Part I. Studies on the family Bucephalidae Poche, 1907." No. 12, 172 pp.

(354a) Nagaty describes 15 species of Bucephalid trematodes, all of which are reported for the first time from the Red Sea. They include *Bucephalopsis southwelli* n. sp., *B. lenti* n. sp., *B. longicirrus* n. sp., *B. megacetabulus* n. sp., *Rhipidocotyle khalili* n. sp., *R. eckmanni* n. sp., *Proisorhynchus freitasi* n. sp. and *Alcicornis baylisi* n. sp. To the Proisorhynchinae is added *Neidhartia* n. g., distinguished from *Proisorhynchus* by having the ovary at the same level as the testes. There are two species, *Neidhartia neidharti* n. sp. and *N. ghardagae* n. sp. E.M.S.

### 355—Queensland Agricultural Journal.

- a. ROBERTS, F. H. S., 1937.—"Parasites of the pig." 48 (4), 400-413.

(355a) [This is a revision of a paper appearing in Vol. 42 of the same journal; see Helm. Abs., Vol. III, No. 645c.]

### 356—Records of the Indian Museum.

- a. PODDER, T. N., 1937.—"On a new species of *Neoechinorhynchus* parasitic on *Mugil cephalus* Linn. from the Chilka Lake." 39 (2), 129-131.

(356a) Podder describes *Neoechinorhynchus chilkaensis* n. sp., a new species of Acanthocephala, from the intestine of its host fish, *Mugil cephalus*. The species is distinguished from others of the genus especially by the large size of the anterior row of hooks. E.M.S.

### 357—Revista de Biologia e Hygiene.

- a. PESSÔA, S. B. & PASCALE, H., 1937.—"Pesquisas sobre a ancylostomose em São Paulo. I. Sobre o método de Stoll-Hausheer para a contagem de ovos nas fezes." 8 (1), 27-36.

(357a) From egg-counts by the Stoll-Hausheer method and worm-counts after treatment, based on 31 patients infected with *Necator* in S. Paulo, Pessoa & Pascale found that the mean number of eggs per gramme per female *Necator* was 36.5, with a mean number of females per case at 46.2.

Classifying the same data into lightly infected (mean : 9.8 females per case) and heavily infected (104 females per case), they found the egg-counts per gramme per female to be 85.9 and 28.9 respectively. Of nine cases negative to the egg-counting technique, eight were infected with an average of 5.8 worms per case.

B.G.P.

### 358—Revista de Gastro-Enterología de México.

- \*a. RAMÍREZ ULLOA, J., 1937.—“Nota estadística sobre 800 exámenes coprológicos.” 2, 111-117.

### 359—Revista Médica Cubana.

- \*a. HERNÁNDEZ, A., 1937.—“Expulsión de una tenia insospechada.” 48, 67-73.

### 360—Revista Médica de Yucatán.

- a. PENICHE CANTÓN, R., 1937.—“La parasitosis intestinal en nuestro medio, desde el punto de vista del laboratorio.” 19 (3), 56-57.

(360a) Cantón gives the results of 100 faeces examinations collected from inhabitants of Mérida (Yucatan) since 1934. Of 44 children 9 were parasite free, as were also 7 of 56 adults. The commonest helminths were *Trichuris*, *Oxyuris* and *Ascaris*.

B.G.P.

### 361—Revue Suisse de Zoologie.

- a. DUBOIS, G., 1937.—“Sur quelques strigéidés. (Notes préliminaires).” 44 (3), 391-396.

(361a) Dubois' paper consists simply of a list of strigeids arranged under families, with no explanatory text of any kind. In many cases a species is listed and followed only by one or more synonyms. In 23 cases the species are labelled “n. sp.”, and these give host, country, and a description in three or four lines. A new genus, two new subgenera (of *Neodiplostomum*), and a new name are also listed.

B.G.P.

### 362—Riforma Medica.

- a. CICCHITTO, A. M., 1937.—“Sulla patogenesi e sul trattamento antimoniale dell' elefantiasi.” 53 (9), 323-327.  
b. AIEVOLI, E., 1937.—“Linfangite elefantiasica recidivante (Elephantiasis Arabum).” 53 (28), 1001-1002.  
c. MALOBERTI, U., 1937.—“Sindromi psicopatiche e ascaridiosi.” 53 (38), 1357-1358.

### 363—Rinascenza Medica.

- a. SACCO, R., 1937.—“Cisti da echinococco del polmone destro.” 14 (3), 88-89.

\* Original not available for checking or abstracting.



## 364—Rivista di Parassitologia.

- a. VANNI, V. & ATTILI, S., 1937.—“Saggi di anatomia radiologica di alcuni zooparassiti fuori dell'organismo.” 1 (4), 301-307.
- b. JERACE, F., 1937.—“Un nematode parassita di pipistrelli dell'Agro Romano.” 1 (4), 325-327.

(364a) Vanni & Attili consider that the radiological examination of parasites outside the body of the host, with and without the use of colloidal thorium to produce contrasting shadows, may be of value in classification. They show skiagrams of *Fasciola* and *Taenia*, with various organs injected with thorium. B.G.P.

(364b) Describing *Strongylacantha glycirrhiza* from the bat *Rhinolophus ferrum-equinum* in the Roman Campagna, Jerace proposes the new variety name *romana*, on the basis of much greater size in both sexes, and the possession of an imbricated cuticle. B.G.P.

## 365—Rivista di Parassitologia. Supplemento Monografico.

- a. BOGLIOLO, L., 1937.—“Sopra i rapporti tra elminti e blastomi.” No. 2, 60 pp. [Issued as supplement to Riv. Parassit., Vol. 1 (4).]

(365a) Bogliolo has critically reviewed the literature on the relation between helminths and neoplasms. He deals systematically with 40 species of helminths, and concludes that a definite association can be proved only in the cases of *Cysticercus fasciolaris*, *Gongylonema neoplasticum* and *Schistosoma haematobium*. His review is based on over 200 references. B.G.P.

## 366—Rundschau auf dem Gebiete der Gesamten Fleischbeschau und Trichinenschau des Schlacht- und Viehhofwesens.

- a. WETZEL, R., 1937.—“Der Fleischbeschauer und die Finnen-Bandwurmfrage.” Heft 18, [Reprint 16 pp.]

(366a) Wetzel gives a general account of the tapeworm larvae met with in meat inspection, illustrated by a table giving intermediate and definitive hosts and tapeworm names and locations, and also by two striking life-history diagrams. B.G.P.

## 367—Schweizer Archiv für Tierheilkunde.

- a. EICHENBERGER, A., 1937.—“Dummkollerartige Erscheinungen als Folge von Wurmbefall.” 79 (6), 285-286.
- b. BAUMGARTNER, A., 1937.—“Erfahrungen über Magendarmstrongylose bei den Wiederkäuern.” 79 (7), 301-317.

(367a) A case of staggers in a horse is ascribed by Eichenberger to infestation by *Ascaris*. The horse also had strongyles and *Oxyuris*, but only *Ascaris* was completely removed by treatment and the symptoms then abated. B.G.P.

(367b) Baumgartner discusses trichostrongylosis in ruminants. After a general introduction, in the course of which he reviews the scanty Swiss

literature on the subject, he deals in turn with cattle, sheep and goats, the Alpine ibex, and the chamois, basing his remarks on his own case-reports. The best anthelmintics are those stimulating glandular activity and contraction, such as Arecolin, Lentin, or Contortin. The latter is a mixture of areca nut, kamala, and aromatics.

B.G.P.

## 368—Science.

- a. LEIGH, W. H., 1937.—“The life cycle of a trematode of frogs.” 86 (2236), p. 423.
- b. HADLEY, C. E. & CASTLE, R. M., 1937.—“A method for rapidly excysting metacercariae.” 86 (2237), p. 452.
- c. HOBMAIER, M., 1937.—“Non-transmissibility of trichinellosis in pig.” 86 (2241), p. 542.
- d. HOBMAIER, M. & MEYER, K. F., 1937.—“Filter-method for clean isolation of *Trichinella*-larvae.” 86 (2242), p. 568.

(368a) Leigh gives a brief account of the life history of *Glypthelmins quieta* Stafford. The cercaria is identified as *Cercaria mesotylpha*, occurring naturally in *Physa gyrina* and *P. gyrina hildrethiana* in Illinois. These cercariae penetrate and encyst beneath the skin of the final host, *Rana pipiens* or *R. catesbeiana*. The worms reach the digestive tract of the host by being ingested with the cast skin.

E.M.S.

(368b) Metacercariae can be released from their cysts by first stranding them on to a small piece of lens paper or cleansing tissue to prevent rolling. Two fine sewing needles mounted in wooden handles are then used. With one the cyst wall is held while the cyst is pierced by the other under a dissecting microscope.

R.T.L.

(368c) Hobmaier infected a pregnant sow on four different occasions during gestation with *Trichinella*, but none of the litter subsequently born showed any infection, although the sow itself became heavily infected with encysted larvae.

V.D.S.

(368d) A cylindrical jam-jar is filled with minced infected meat and digestion fluid, and the open end is closed with four layers of gauze [no size is given] and a close-fitting glass cover. The whole is then inverted into a funnel, the stem of which is fitted into a centrifuge tube, the tube and funnel being filled with saline. The glass cover is removed from the jar, and the apparatus incubated. As digestion proceeds the larvae collect in the centrifuge tube free from coarse particles.

V.D.S.

## 369—Scottish Journal of Agriculture.

- a. ROBERTSON, D., 1937.—“Lungworms in pigs.” 20 (4), 373-377.

(369a) A survey of the incidence of lungworms in pigs in north-east Scotland carried out by Robertson showed that 13.08% of the 1,009 pigs examined were infested with one or both of the species *Metastrongylus elongatus* and *M. brevivaginitus*. The number of worms present in each infested pig varied from 1 to 65 with an average of 11. The author also found that the greater proportion of heavy infestations was obtained in

consignments of pigs from Ross-shire while in those from Aberdeenshire a lower level of infestation prevailed. Factors relating to the life-history, prevention and treatment of lungworms are also discussed. D.O.M.

### 370—Semana Médica.

- a. ARCE, J., 1937.—“Tratamientos de los quistes hidáticos del pulmón. Estadística del Inst. de Clínica Quirúrgica. Casos operados con neumotórax previo.” 44 (3), 211-212.
- b. PROVENZANO, D., 1937.—“Los peligros de la carne de cerdo para la salud del hombre. La triquinosis.” 44 (29), 218-222.

(370b) Provenzano gives a general account of the biology, symptomatology, pathology, mortality rate, diagnosis and treatment of trichinosis, with notes on the prophylactic measures taken in Buenos Aires and previous records of cases in South America. V.D.S.

### 371—Sitzungsberichte der Gesellschaft Naturforschender Freunde zu Berlin.

- a. WETZEL, R., 1937.—“Zur Entwicklung des Dachslungenwurmes *Filaroides falciformis* (Schlegel, 1933). Vorläufige Mitteilung.” 1937 (1/3), 1-3.
- b. WETZEL, R. & ENIGK, K., 1937.—“Ein Beitrag zur Biologie von *Graphidium strigosum*, dem Magenwurm der Hasen und Kaninchen. Vorläufige Mitteilung.” 1937 (1/3), 4-6.
- c. WETZEL, R. & ENIGK, K., 1937.—“Ein weiterer Beitrag zur Lungenwurmfauna des Hochwildes.” 1937 (1/3), 9-10.
- d. HALTENORTH, T., 1937.—“Neue Wirte und Verbreitungsgebiete von *Troglootrema acutum* Leuck. und *Skrjabingylus nasicola* Leuck.” 1937 (1/3), 74-80.

(371a) Wetzel describes the life-history of *Filaroides falciformis*, the badger lungworm. The following slugs and snails have been implicated as intermediaries: *Agriolimax agrestis*, *Fruticicola hispida*, *Cepaea* spp., *Euomphalia strigella*, and *Succinea putris*. The free-living larvae, and the subsequent stages in the molluscs are described. A two year old badger fed with infected snails began to pass larvae 21 days afterwards. B.G.P.

(371b) [This paper appears in full in Deuts. Tier. Wschr., Vol. 45 (25), pp. 401-405; see Helm. Abs., Vol. VI, No. 93c.]

(371c) Wetzel & Enigk report *Dictyocaulus filaria* from roe-deer, a host record which has been frequently disputed since Leuckart first announced it, and *D. viviparus* from bison. *D. hadweni* is probably synonymous with the latter. B.G.P.

(371d) *Troglootrema acutum* can give rise to small irregular perforations in the frontal region of its host's skull; *Skrjabingylus nasicola* similarly causes smaller, circular perforations in the same region. Haltenorth has examined the carnivore skulls at the Berlin Zoological Museum for these lesions and as a result extends the host-lists and distributions of these two parasites. *T. acutum* lesions were found in several Mustelidae and Viverridae, and also in Vulpes and Phoca. *S. nasicola* lesions were found in several species of the two families mentioned. Lists show the host species, their place of origin, and distribution. B.G.P.



**372—South African Medical Journal.**

- a. SARGENT, R. M., 1937.—“An interesting case: [Schistosomiasis haematobia].” 11 (4), p. 123.

**373—Southern Medical Journal.**

- a. RADEMAKER, L., 1937.—“A case of multiple echinococcus cysts of liver treated by operation and arsphenamine.” 30 (12), 1198-1199.

**374—Sovetskiy Vrachebniy Zhurnal.**

- \*a. MENSHIKOV, F. K. & PONOMAREVA, E. V., 1937.—[Distomiasis of liver and biliary passages.] 41, 270-276.  
 \*b. KHEYFETS, K. B. & SKUBLEVSKAYA, M. V., 1937.—[Symptomatology of strongyloidosis.] 41, 276-280.

**375—Sowjetskaja Veterinarija.**

- \*a. KRASTIN, N. I., 1937.—[Die Diagnostik und Therapie der Hyostromylose der Schweine und die Verbreitung dieser Krankheit.] Nr. 6, p. 54.

**376—Taiwan Igakkai Zasshi.**

- a. ABE, S., 1937.—“Investigations on the biological behaviour of the mature larvae of *Wuchereria bancrofti* developed in the mosquito.” 36 (9), 2083-2103. [In Japanese: English summary pp. 2102-2103.]  
 b. NARIHARA, N., 1937.—“A case of human infestation with rat tapeworm (*Hymenolepis diminuta* Rudolphi) in Formosa.” 36 (10), 2285-2290. [In Japanese: English summary p. 2290.]

(376a) The life of the infective stage of *Filaria bancrofti* is 37 to 58 hours in normal saline and 15 hours in well water and distilled water. The larva does not show thigmotropism or thermotropism. At 37° to 40° C. it exhibits positive phototropism which is reversed at low temperatures. R.T.L.

**377—Tidsskrift for Planteavl.**

- a. ANON, 1937.—“Rodaalens Levevis og Bekaempelse.” (Meddelelser fra Statens Forsøgsvirksomhed i Planteavl, No. 256, 1936). 42 (3), 521-525.

(377a) Some of the most important facts about the gross morphology and life-history of the root-knot eelworm, *Heterodera marioni*, are briefly set out especially in relation to certain greenhouse crops. Methods of control by treatment of infested soil are discussed and particulars are given on the use of (i) a combination of carbon disulphide with a cresol soap and (ii) a carbon disulphide paste. Both are made with water and applied to soil.

T.G.

**378—Transactions of the American Microscopical Society.**

- a. HSÜ, D. Y., 1937.—“Life history and morphology of *Macraves tibulum eversum* sp. nov. (Pronocephalidae, Trematoda).” 56 (4), 478-504.

(378a) Hsü describes all stages from the redia to the adult of *Macraves tibulum eversum* n. sp. The intermediate host is the snail, *Goniobasis livescens*, in whose gills the trioculate cercaria develop. After emergence,

\* Original not available for checking or abstracting.

the cercariae creep under the operculum of the snail and encyst there, to develop into metacercariae. The final host is the map-turtle, *Graptemys geographica*. The worm possesses a secondary excretory bladder, the vestibule, with two eversible lateral pouches and derived from ectoderm.

E.M.S.

### 379—Transactions of the Natural History Society of Formosa.

- a. YOKOGAWA, S., 1937.—“A new species of nematode found in the lungs of rats, *Hemostrongylus ratti* n. sp.” 27 (170), 247-250.

(379a) *Haemostrongylus ratti* n. sp. is a common parasite in the lungs of rats in the eastern part of Formosa. The adult worms live in the branches of the pulmonary artery and right heart. The eggs are found in all stages of development in the inflammatory tissues surrounding the capillaries. The new species is compared with *H. vasorum* and *H. subcrenatus* each of which has only been reported once and both of which occur in carnivores. The dorsal ray of the bursa is in *H. ratti* markedly degenerate. The main trunk is indistinguishable and the terminal twigs are merely minute papillae on either side of the caudal extremity, whereas in the other 2 species the dorsal rays are large branching bodies. The spicule in *H. ratti* is 1 to 1.2 mm. long.

R.T.L.

### 380—Transactions of the Royal Society of Tropical Medicine and Hygiene.

- a. MANSON-BAHR, P., 1937.—“Bancroftian filariasis and the reticulo-endothelial system.” [Correspondence.] 31 (3), 368-369.

(380a) Manson-Bahr claims priority for demonstrating in 1910-1912 the part played by endothelial cells in the pathology of Bancroftian filariasis which Clayton Lane (1937) has attributed to F. W. O'Connor.

R.T.L.

### 381—Travaux de l'Institut Zoologique de l'Académie des Sciences de l'URSS.

- a. SHADIN, V. I., 1937.—“Einige Feld- und Experimental-Beobachtungen an *Limnaea truncatula* Müll., dem Überträger der Fasciolosis (Mollusca, Gastropoda, Pulmonata).” 4 (3/4), 541-564. [In Russian : German summary pp. 563-564.]

(381a) Shadin finds that *Limnaea truncatula* is rare in the basin of the river Vetluga, a tributary of the Volga, but plentiful in that of the Tesha, a tributary of the Oka. Tables show the distribution of this and other gastropods. Laboratory experiments show the following solutions to be lethal to *L. truncatula*: KOH & NaOH of pH: 10; H<sub>2</sub>SO<sub>4</sub> of pH: 1 to 2; CuSO<sub>4</sub>, 1 in 10,000; CuCl<sub>2</sub> [called in the summary CaCl<sub>2</sub>], 1 in 1,000,000.

B.G.P.

### 382—Tunisie Médicale.

- a. BIECHER & LAFOURCADE, 1937.—“A propos d'une observation de kyste hydatique suppuré du rein chez un enfant de 5 ans.” 31 (3), 94-100.

**383—United States Naval Medical Bulletin.**

- a. JOSES, M. & WELLS, J. J., 1937.—“Trichinosis. A report of two cases.” 35 (4), 475-480.
- b. SARGENT, W. S., 1937.—“Acute intestinal obstruction due to roundworms.” 35 (4), 482-484.

**384—University of California Publications in Zoölogy.**

- a. KOFOID, C. A., WILLIAMS, O. L. & VEALE, N. C., 1937.—“*Thelazia californiensis*, a nematode eye worm of dog and man, with a review of the Thelazias of domestic animals.” 41 (17), 225-234.

(384a) The authors review and tabulate the occurrences of Thelazias in man and domesticated animals. The symptomatology, diagnosis and treatment are outlined. Nine cases of *Thelazia californiensis* have been reported in California since 1927. This parasite is redescribed. *T. rhodesi* is now reported from cattle in California.

R.T.L.

**385—Urologic and Cutaneous Review.**

- a. CAWSTON, F. G., 1937.—“The general practitioner and the bilharzia patient.” 41, 330-331.

**386—Vestnik Khirurgii.**

- \*a. DEYNEKA, I. Y., 1937.—[Echinococcosis of lungs.] 49, 54-72.

**387—Veterinarski Arhiv.**

- a. MIKAČIĆ, D., 1937.—“Entoparazitička fauna zaklanih iuginulih svinja.” 7 (9), 401-413. [German summary p. 413.]

(387a) Mikačić reports on the parasites found in 100 dissections of pigs in Yugoslavia. The data, which are arranged under locality, organ and parasite in a comprehensive table, include one case of *Fasciola hepatica* and one of *Gnathostoma hispidum*. Only 7 pigs were negative for parasites.

B.G.P.

**388—Veterinary Medicine.**

- a. REDMAN, W. D., 1937.—“*Taenia pisiformis* in the dog.” 32 (6), p. 223.
- b. WEHR, E. E., 1937.—“Relative abundance of crop worms in turkeys. Macroscopic differentiation of species.” 32 (6), 230-233.
- c. WHITLOCK, J. H., 1937.—“Endoparasitism of the cat.” 32 (11), 514-520.

(388a) Redman's case report is of interest from the large number of *Taenia pisiformis*, 212, weighing 7 lb., removed from a dog with a half grain of arecoline hydrobromide followed by an enema.

B.G.P.

(388b) Wehr finds that in Washington, D.C., turkey oesophagi are infected most frequently with *Capillaria contorta*, *C. annulata* and less frequently with *Gongylonema ingluvicola*. All of these worms exhibit a typical shape and method of coiling themselves both in their natural habitat and when removed to water. This appearance is sufficiently constant for it to be used as a method of diagnosis.

P.A.C.

\* Original not available for checking or abstracting.



(388c) Whitlock deals with the helminthic infections in the cat, from a clinical viewpoint, under the following headings: verminous gastritis, ancylostomiasis, enterohelminthic toxæmia, and other parasitic diseases. The parasites are also discussed in relation to public health. J.W.G.L.

### 389—Veterinary Record.

- a. TAYLOR, E. L., 1937.—“The diagnosis of helminthiasis in farm animals.” 49 (40), 1259-1262.
- b. POLLOCK, J. W., 1937.—“Intratracheal injections of oil of chenopodium in ‘parasitic hoose’.” [Correspondence.] 49 (41), p. 1314.
- c. SMYTHE, R. H., 1937.—“Intratracheal injections of oil of chenopodium in ‘parasitic hoose’.” [Correspondence.] 49 (42), p. 1336.
- d. CAMPBELL, W. A., 1937.—“Treatment of ‘parasitic hoose’.” [Correspondence.] 49 (43), p. 1371.
- e. GORDON, R. F., 1937.—“Summary of diseases diagnosed in chicks received at the Ministry of Agriculture and Fisheries Veterinary Laboratory during the four years, January, 1933, to December, 1936.” 49 (44), 1377-1379.
- f. LEIPER, J. W. G., 1937.—“Natural helminthiasis of the goat involving infection with *Trichostrongylus retortaeformis* of the rabbit.” 49 (45), 1411-1412.

(389a) Taylor points out that while faecal examinations and particularly egg-counting techniques are very useful aids in the diagnosis of helminthiasis, they often give misleading results and should therefore be supplemented by enquiries into the history of a particular outbreak of disease. The most reliable evidence is obtained from a properly conducted post-mortem examination of one or more animals from the flock or herd. D.O.M.

(389e) In the 1,505 consignments of chicks sent to the Ministry of Agriculture and Fisheries Veterinary Laboratory for post-mortem examination, only three groups of chicks showed gapeworm infestation. Records from other birds include “gapes” in turkey poults, pheasants and partridges, and both “gapes” and gizzard worms in goslings. D.O.M.

(389f) J. Leiper records for the first time the occurrence of *Trichostrongylus retortaeformis* as natural and as experimental infections in goats. The examination of two goats which had died as the result of heavy infections with gastro-intestinal helminths revealed a total of over 15,000 and 16,000 worms respectively while a third emaciated goat from the same flock recovered when housed and fed on concentrates, and harboured only about one third that number of worms when autopsied a few months later. D.O.M.

### 390—Virginia Medical Monthly.

- a. PRATHER, P. F., 1937.—“Tapeworm infestation successfully treated by instillation of medicine through a duodenal tube.” 63 (12), 734-735.
- b. FRAZER, W. P., 1937.—“Appendicitis and children—report of a case with intestinal parasite.” 64 (1), 31-33.

(390a) Prather describes the use of a duodenal tube in the treatment of *Taenia saginata*. Details are given of one case in which the head and segments of the tapeworm were recovered after administering the following

mixture through the tube : Oleoresin *Aspidium* 2 drams, mucilage of *Acacia* 1½ oz., saturated solution of magnesium sulphate 1 oz., and water 2 oz. No toxic symptoms were observed after treatment. K.S.

### 391—*Vrachebnoe Delo*.

- \*a. POPKOV, I. G., 1937.—[Development of cavern from echinococcic cyst of lung.] [20], 71-72.

### 392—*Zeitschrift für Fleisch- und Milchhygiene*.

- a. KOLBE, F., 1937.—“Neueres über die gesundheitsschädlichen Finnen der Schlachttiere und die Finnen des Wildes. Sammelreferat.” 48 (2), 23-30; (3), 41-44; (5), 85-89.

(392a) In these three parts, and a fourth to appear in 1938, Kolbe reviews from recent literature the cysticerci of meat and game animals. The first two deal with *C. bovis*, reviewing in turn biology, development, viability, infectivity, epidemiology, effect of lethal agents, and control. The third deals similarly but less extensively with *C. cellulosae*. B.G.P.

### 393—*Zeitschrift für Parasitenkunde*.

- a. WETZEL, R. & ENIGK, K., 1937.—“Ein weiterer Beitrag zur Kenntnis der Parasitenfauna des Elches (*Alces alces*).” 9 (6), 695-697.  
 b. ZIMMERMANN, H. R., 1937.—“Life-history studies on cestodes of the genus *Dipylidium* from the dog.” 9 (6), 717-729.  
 c. SZIDAT, L., 1937.—“Über einige neue Caryophyllaeiden aus ostpreussischen Fischen.” 9 (6), 771-786.

(393a) Among parasites of the European elk, *Alces alces*, Wetzel & Enigk record for the first time *Setaria labiato-papillosa* and *Strongyloides papillosus*. Cysts from the myocardium and masseters were identified as *Cysticercus tenuicollis* by feeding them to a dog, other cysts from the liver being fed to a second dog by way of control. The muscular cysts were of the size and appearance (apart from hooks) of *C. bovis*. B.G.P.

(393b) Zimmermann confirms previous investigators' statements that dog and cat fleas are intermediate hosts of *Dipylidium caninum*. But he failed repeatedly to infect *Trichodectes canis*. Differences occur in the cysticercoids found in fleas and lice and these are due to a difference in species, for *Trichodectes canis* is intermediate host for *Dipylidium sexcoronatum*. The flea becomes infected by ova from *Dipylidium* with red proglottides while the louse is only infected by ova from white proglottides. R.T.L.

(393c) Szidat has found three new species of Caryophyllidean cestodes in the intestine of *Carassius carassius*. He points out that the only member

\* Original not available for checking or abstracting.

of this family listed for Germany is *Caryophyllaeus laticeps* Pallas, which has been shown by Nybelin to be a collective name, covering forms from 22 species of host fishes. The species has been described by H. Will and by Nybelin from material from *Abramis brama*, and these descriptions also conform to material recently discovered in Braun's collection, which was taken from the same host. The species as described by Fuhrmann 1930 from *Cyprinus carpio* differed from these descriptions, and so becomes *Caryophyllaeus fuhrmanni* n. sp. Szidat's three new species together with *C. japonensis* Yamaguti fall into the sub-family Lytocestinae, but a new genus has been erected for them—*Bothrioscolex* n. g., with four species, *B.* (= *Caryophyllaeus*) *japonensis*, type species, and *B. prussicus* n. sp., *B. rossittensis* n. sp., and *B. dubius* n. sp. E.M.S.

### 394—Zeitschrift für Pflanzenkrankheiten (Pflanzenpathologie) und Pflanzenschutz.

- a. GOFFART, H., 1937.—“Beobachtungen über das Auftreten von *Rhabditis lambdiensis* Maupas.” 47 (5), 298-301.
- b. EXT, W. & GOFFART, H., 1937.—“Erfahrungen und Massnahmen bei der Bekämpfung des Kartoffelnematoden (*Heterodera schachtii rostochiensis*).” 47 (11), 560-572.

(394a) Goffart obtained numbers of the eelworm, *Rhabditis lambdiensis* from diseased “sweet lupin” plants and also records their occurrence on the outside of dead eggs and grubs of the cockchafer, *Melolontha melolontha*. In the case of the lupins a virus is suggested as the probable cause of the disease. He gives brief particulars of an experiment in which numbers of *R. lambdiensis* were added to sterile soil in pots planted with lupin seedlings. After some days these showed symptoms of disease similar to those exhibited by the original plants. Goffart suggests that the nematodes may have acted as carriers of the pathogens, whatever they were, and concludes that although not itself a primary parasite, *R. lambdiensis* may, from its known ability to carry pathogenic bacteria, be of primary importance in the spread of disease.

T.G.

(394b) Ext & Goffart describe methods employed in Schleswig-Holstein to isolate areas infected with *Heterodera schachtii rostochiensis* and prevent its further spread. Three course rotation has been proved to prevent losses in infected allotments. An official order has been made stipulating such a rotation in known infected areas, and this, together with systematic education of small-holders and inspection of house gardens and allotments, has overcome most of the difficulties of controlling the parasite.

M.J.T.

### 395—Zeitschrift für Urologie.

- TOMOFF, W., 1937.—“*Echinococcus renis dex.*” 31 (4), p. 303.



## 396—Zentralblatt für Bakteriologie. Abteilung I. Originale.

- a. TRAWINSKI, A., 1937.—“Über Nachweis der Leberfäule mittels der Präzipitationsmethode.” 139 (1/2), 90-95.
- b. KREIS H. A., 1937.—“Beiträge zur Kenntnis parasitischer Nematoden. V. Neue parasitische Nematoden aus der Forelle, *Salmo fario* L.” 140 (2), 127-131.

(396a) Trawiński has successfully demonstrated the presence of liver fluke in sheep and cattle by means of the precipitation reaction. Positive results were obtained following the use of fluke antigen but no results were obtained when he used antigens obtained from *T. echinococcus* (larval stage) or *Cysticercus cellulosae*. More definite reactions were given by the sera from animals in the acute stage of the disease than from those which had reached the chronic stage.

P.A.C.

(396b) Kreis describes as *Paramisakis parva* n. sp., a single female from the stomach of *Salmo fario*; it is distinguished from *P. squatinæ* Baylis by its much smaller size, and more anterior position of vulva. Three females from the intestine are described as *Neogoezia magna* n. g., n. sp.; the cuticula is strongly ringed as in *Goezia* spp., but the anterior end is more similar to that of *Raphidascaris*.

E.M.S.

## 397—Zoologische Jahrbücher. Abteilung für Anatomie und Ontogenie der Tiere.

- a. MEYER, A., 1937.—“Die plasmodiale Entwicklung und Formbildung des Riesenkratzers (*Macracanthorhynchus hirudinaceus*). II. Teil.” 63 (1), 1-36.

## 398—Zoologische Jahrbücher. Abteilung für Systematik, Ökologie und Geographie der Tiere.

- a. FUCHS, A. G., 1937.—“Neue parasitische und halbparasitische Nematoden bei Borkenkäfern und einige andere Nematoden. I. Teil.” 70 (5/6), 291-380.

(398a) Fuchs deals with Rhabditid and Aphelenchoid nematodes found associated with certain bark beetles. Larval stages of the nematodes occur in the body cavity of the insects and the adult stages are found in the frass of the tunnels in the bark. In a new subgenus, *Parasitorhabditis*, is placed the author's *Rhabditis obtusa* with 15 forms named after their beetle hosts. He also creates *Rhabditis juglandicola* n. sp. and *R. debilicauda* n. sp. Amongst Aphelenchoid nematodes the author erects the following new subgenera: *Parasitaphelenchus* with three host forms of *P. uncinatus* and *P. papillatus* n. sp., *Steineria* with *S. viktoris* n. sp., *Cryptaphelenchus* with *C. macrogaster*, *C. pygmaeus*, *C. amitini* n. sp., *C. malpighius* n. sp., and *Ektaphelenchus*. The following genera are also new: *Bursaphelenchus* with *B. piniperdae* n. sp. and *B. poligraphi* n. sp., and *Laimaphelenchus* with *L. moro* n. sp.

T.G.

## NON-PERIODICAL LITERATURE.

- 399—ANON, 1937.—“Hookworm infection in India.” League of Nations. Health Organisation. Inter-Governmental Conference of Far-Eastern Countries on Rural Hygiene. Preparatory Papers relating to British India. Ser. L.o.N.P., III. 6. pp. 92-98.

This brief paper on the epidemiology of ancylostomiasis in India points out that the incidence is high—probably 210 million persons are infected—but the intensity rather low on the average. Intensity is highest in Burma, Assam and Bengal, and along the coasts. *Necator* predominates in the south and east, and *Ancylostoma* in the north and west. Control measures should include the treatment of labourers returning from abroad, usually from more highly infected countries, and the wider use of the bore-hole latrine where soil conditions are suitable.

B.G.P.

- 400—BOHN, G., 1937.—“Untersuchungen über den Lungenwurmbefall der wichtigsten deutschen Nutzwildarten.” Inaugural-Dissertation, Berlin, 44 pp.

Bohn has investigated the incidence of lungworms in four species of deer, bison, chamois, hare and rabbit in Germany. The data are discussed, with some pathological observations, under each host. *Muellerius capillaris* is recorded for the first time from *Cervus dama*, and was the commonest lungworm in the other three deer and in chamois. *Dictyocaulus viviparus* was the only lungworm of the bison, and *Protostrongylus commutatus* of hares. Lungworms only rarely cause obvious disease, but are none the less harmful.

B.G.P.

- 401—BREWE, W., 1937.—“Beitrag zur Differentialdiagnose parasitärer und nichtparasitärer Gebilde bei der mikroskopischen Untersuchung des Hühnerkotes.” Dissertation, Hannover, 33 pp.

Out of 100 samples of chicken faeces examined during the winter Brewe found 80% to contain parasites. About three quarters of them contained coccidia oocysts, half showed eggs of the *Ascaridia-Heterakis* group, and 28% contained *Capillaria* eggs. Various plant structures of a non-parasitic nature could be differentiated—pollen grains, fungal spores and conidia.

P.A.C.

- 402—BRÜGGEMANN, H., 1937.—“Vergleichende Untersuchungen verschiedener Flotationsmedien zum Nachweis von Leberegeleiern im Kot von Schaf und Rind.” Dissertation, Hannover, 34 pp.

After reviewing published methods of concentrating liver-fluke eggs from faeces by flotation, Brüggemann describes his own successful experiments



using: (i) water-glass of specific gravity 1.335, (ii) concentrated potash solution of sp. gr. 1.56, found unsatisfactory owing to frothing, and (iii) a new solution made up with water, 100 ccm.; potash, 110g.; sugar 110 g., of sp. gr. 1.48. Tests, controlled by using rectal faeces from slaughtered animals whose livers were examined, showed the first to float most eggs, while the third has the advantage of not spoiling apparatus. B.G.P.

- 403—BRUNS, W., 1937.—“Das Verhalten der invasionsfähigen Larven der Pferdestrongyliden in verschiedenen Bodenarten.” Inaugural-Dissertation, Berlin, 31 pp.

Bruns has investigated the effect of soil type and light on the migration of horse-strongyle larvae, using *Trichonema* spp. and the three *Strongylus* spp. in mixture. The soils used were, in order of particle-size, medium sand, fine sand, loess, loam and clay, the optimum amount of migration occurring in fine sand. Most of this migration is vertical, upwards in the dark or in twilight and downwards in sunlight. Upward migration to the surface also depends on humidity, being maximal when the air is saturated. Under optimum conditions the rate of migration is about 1.5 cm. per hour. B.G.P.

- 404—MANTER, H. W., 1937.—“A new genus of distomes (Trematoda) with lymphatic vessels.” Hancock Pacific Expeditions, 2 (3), 11-22.

Manter describes *Apocreadium mexicanum* n. g., n. sp. and *A. longisinosum* n. sp. from marine fishes. The genus is characterized by possession of a tubular genital sinus, lack of a cirrus sac, and especially by a well-developed branching system of lymph vessels. It is referred to the Megasoleninae, but stands intermediate between this subfamily and the Anallocreadiinae, and forms part of a graded series connecting the Par-amphistomida with the Allocreadiidae. E.M.S.

- 405—PENSO, G., 1937.—“La calciocianamide quale disinfestante.” Rome, 121 pp.

- 406—SEIFRIED, O., 1937.—“Die Krankheiten des Kaninchens mit besonderer Berücksichtigung der Infektions- und Invasionskrankheiten.” Berlin, 2nd edit., ix + 254 pp.

Seifried's 250-page handbook of rabbit diseases deals with helminths on pages 157 to 187. In the case of most parasites he gives a brief description of morphology and life-history and then treats of mode of infection, pathology, diagnosis, prophylaxis and treatment [although the morphological data are mostly insufficient for diagnosis]. B.G.P.



- 407—WICKRAMASURIYA, G. A. W., 1937.—“Malaria and ankylostomiasis in the pregnant woman: their more serious complications and sequelae.” London, xiii + 179 pp.

The association of malaria and ancylostomiasis with pregnancy gives rise to some of the most important problems in tropical midwifery and exacts a heavy toll of maternal and foetal life, while puerpural infection is an insignificant factor in maternal mortality in the tropics. The second half of this book, which was the Katherine Bishop Harman Prize Essay for 1936, deals very fully with the influence of hookworm disease on pregnancy, labour and the puerperium, and on the diagnosis and management of the disease when associated with pregnancy.

R.T.L.